

[MS-WWSP]:

Workflow Web Service Protocol

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1 Introduction

The Workflow Web Service Protocol specifies the communication sequences used to query, start, and manipulate workflows on a document.

Sections 1.5, 1.8, 1.9, 2, and 3 of this specification are normative. All other sections and examples in this specification are informative.

1.1 Glossary

This document uses the following terms:

absolute URL: The full Internet address of a page or other World Wide Web resource. The absolute URL includes a protocol, such as "http," a network location, and an optional path and file name — for example, <http://www.treyresearch.net/>.

claim: A set of operations that are performed on a workflow task to specify the user who owns it.

Coordinated Universal Time (UTC): A high-precision atomic time standard that approximately tracks Universal Time (UT). It is the basis for legal, civil time all over the Earth. Time zones around the world are expressed as positive and negative offsets from UTC. In this role, it is also referred to as Zulu time (Z) and Greenwich Mean Time (GMT). In these specifications, all references to UTC refer to the time at UTC-0 (or GMT).

document: An object in a content database such as a file, folder, **list**, or **site**. Each object is identified by a URI.

fully qualified URL: A URL that includes a protocol scheme name, a host name, optionally a port number, a path, optionally a search part, and optionally a fragment identifier, as described in [\[RFC2616\]](#).

globally unique identifier (GUID): A term used interchangeably with universally unique identifier (UUID) in Microsoft protocol technical documents (TDs). Interchanging the usage of these terms does not imply or require a specific algorithm or mechanism to generate the value. Specifically, the use of this term does not imply or require that the algorithms described in [\[RFC4122\]](#) or [\[C706\]](#) must be used for generating the **GUID**. See also universally unique identifier (UUID).

group: A named collection of users who share similar access permissions or roles.

Hypertext Transfer Protocol (HTTP): An application-level protocol for distributed, collaborative, hypermedia information systems (text, graphic images, sound, video, and other multimedia files) on the World Wide Web.

Hypertext Transfer Protocol Secure (HTTPS): An extension of HTTP that securely encrypts and decrypts web page requests. In some older protocols, "Hypertext Transfer Protocol over Secure Sockets Layer" is still used (Secure Sockets Layer has been deprecated). For more information, see [\[SSL3\]](#) and [\[RFC5246\]](#).

list: A container within a SharePoint site that stores list items. A list has a customizable schema that is composed of one or more fields.

list identifier: A GUID that is used to identify a **list** in a site collection.

list item identifier: See item identifier.

site: A group of related pages and data within a SharePoint site collection. The structure and content of a site is based on a site definition. Also referred to as SharePoint site and web site.

SOAP: A lightweight protocol for exchanging structured information in a decentralized, distributed environment. **SOAP** uses XML technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation-specific semantics. SOAP 1.2 supersedes SOAP 1.1. See [\[SOAP1.2-1/2003\]](#).

SOAP action: The HTTP request header field used to indicate the intent of the **SOAP** request, using a URI value. See [\[SOAP1.1\]](#) section 6.1.1 for more information.

SOAP body: A container for the payload data being delivered by a **SOAP message** to its recipient. See [\[SOAP1.2-1/2007\]](#) section 5.3 for more information.

SOAP fault: A container for error and status information within a **SOAP message**. See [\[SOAP1.2-1/2007\]](#) section 5.4 for more information.

SOAP message: An XML document consisting of a mandatory SOAP envelope, an optional SOAP header, and a mandatory **SOAP body**. See [\[SOAP1.2-1/2007\]](#) section 5 for more information.

Uniform Resource Locator (URL): A string of characters in a standardized format that identifies a document or resource on the World Wide Web. The format is as specified in [\[RFC1738\]](#).

Web Services Description Language (WSDL): An XML format for describing network services as a set of endpoints that operate on messages that contain either document-oriented or procedure-oriented information. The operations and messages are described abstractly and are bound to a concrete network protocol and message format in order to define an endpoint. Related concrete endpoints are combined into abstract endpoints, which describe a network service. WSDL is extensible, which allows the description of endpoints and their messages regardless of the message formats or network protocols that are used.

workflow: An automation of business processes that passes business documents and tasks automatically from one user to another for action, according to a defined sequence.

workflow association: An association of a workflow template to a specific list or content type.

workflow identifier: A GUID that is used to identify a workflow.

workflow instance: An instance of a workflow association that performs on a list item the process that is defined in a workflow template.

workflow task: An action or task in a sequence that is related to a built-in or user-defined business process.

workflow template: A definition of operations, the sequence of operations, constraints, and timing for a specific process.

XML namespace: A collection of names that is used to identify elements, types, and attributes in XML documents identified in a URI reference [\[RFC3986\]](#). A combination of XML namespace and local name allows XML documents to use elements, types, and attributes that have the same names but come from different sources. For more information, see [\[XMLNS-2ED\]](#).

XML schema: A description of a type of XML document that is typically expressed in terms of constraints on the structure and content of documents of that type, in addition to the basic syntax constraints that are imposed by XML itself. An XML schema provides a view of a document type at a relatively high level of abstraction.

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as defined in [\[RFC2119\]](#). All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

Links to a document in the Microsoft Open Specifications library point to the correct section in the most recently published version of the referenced document. However, because individual documents in the library are not updated at the same time, the section numbers in the documents may not match. You can confirm the correct section numbering by checking the [Errata](#).

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information.

[MS-PRSTFR] Microsoft Corporation, "[ADO XML Persistence Format](#)".

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, <http://www.rfc-editor.org/rfc/rfc2119.txt>

[RFC2616] Fielding, R., Gettys, J., Mogul, J., et al., "Hypertext Transfer Protocol -- HTTP/1.1", RFC 2616, June 1999, <http://www.rfc-editor.org/rfc/rfc2616.txt>

[SOAP1.1] Box, D., Ehnebuske, D., Kakivaya, G., et al., "Simple Object Access Protocol (SOAP) 1.1", W3C Note, May 2000, <http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>

[SOAP1.2-1/2007] Gudgin, M., Hadley, M., Mendelsohn, N., et al., "SOAP Version 1.2 Part 1: Messaging Framework (Second Edition)", W3C Recommendation, April 2007, <http://www.w3.org/TR/2007/REC-soap12-part1-20070427/>

[SOAP1.2-2/2007] Gudgin, M., Hadley, M., Mendelsohn, N., et al., "SOAP Version 1.2 Part 2: Adjuncts (Second Edition)", W3C Recommendation, April 2007, <http://www.w3.org/TR/2007/REC-soap12-part2-20070427/>

[WSDL] Christensen, E., Curbera, F., Meredith, G., and Weerawarana, S., "Web Services Description Language (WSDL) 1.1", W3C Note, March 2001, <http://www.w3.org/TR/2001/NOTE-wsdl-20010315>

[XMLNS] Bray, T., Hollander, D., Layman, A., et al., Eds., "Namespaces in XML 1.0 (Third Edition)", W3C Recommendation, December 2009, <http://www.w3.org/TR/2009/REC-xml-names-20091208/>

[XMLSCHEMA1/2] Thompson, H., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "XML Schema Part 1: Structures Second Edition", W3C Recommendation, October 2004, <http://www.w3.org/TR/2004/REC-xmlschema-1-20041028/>

[XMLSCHEMA1] Thompson, H., Beech, D., Maloney, M., and Mendelsohn, N., Eds., "XML Schema Part 1: Structures", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-1-20010502/>

[XMLSCHEMA2/2] Biron, P., and Malhotra, A., Eds., "XML Schema Part 2: Datatypes Second Edition", W3C Recommendation, October 2004, <http://www.w3.org/TR/2004/REC-xmlschema-2-20041028/>

[XMLSCHEMA2] Biron, P.V., Ed. and Malhotra, A., Ed., "XML Schema Part 2: Datatypes", W3C Recommendation, May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/>

1.2.2 Informative References

[MS-WSSF03] Microsoft Corporation, "[Windows SharePoint Services \(WSS\): File Operations Database Communications Version 3 Protocol](#)".

[RFC2818] Rescorla, E., "HTTP Over TLS", RFC 2818, May 2000, <http://www.rfc-editor.org/rfc/rfc2818.txt>

1.3 Overview

The purpose of this protocol is to enable protocol clients to query, start, and manipulate **workflows** associated with a **document**. The following information can be gathered by the protocol client when using this protocol:

- Existing **workflow instances**.
- **Workflow tasks** emitted by workflow instances.
- Available **workflow associations** for a specified **list**.

In addition, protocol clients can create new workflow instances from a workflow association for a document or modify workflow tasks related to a document.

Each method in the protocol is a **SOAP action** that accepts a set of parameters as a SOAP request and returns a set of values as a SOAP response. The protocol client sends a request to the protocol server by a request **SOAP message**, and the protocol server sends return values to the protocol client by a response SOAP message.

1.4 Relationship to Other Protocols

This protocol uses the **SOAP** message protocol for formatting request and response messages, as described in [\[SOAP1.1\]](#), [\[SOAP1.2-1/2007\]](#) and [\[SOAP1.2-2/2007\]](#). It transmits those messages by using **HTTP**, as described in [\[RFC2616\]](#), or **Hypertext Transfer Protocol over Secure Sockets Layer (HTTPS)**, as described in [\[RFC2818\]](#).

The following diagram shows the underlying messaging and transport stack used by the protocol.

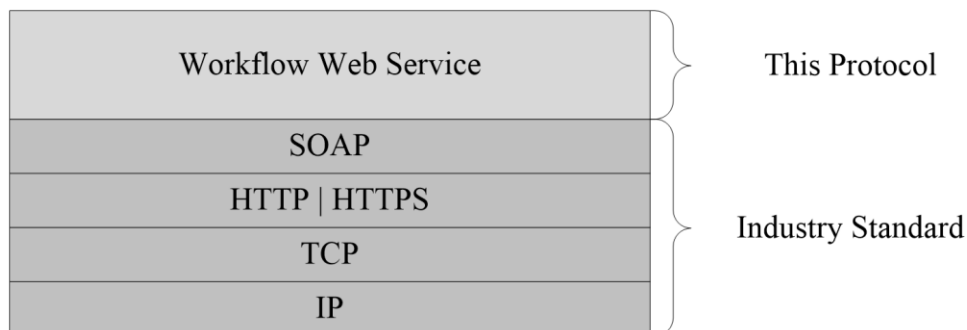


Figure 1: This protocol in relation to other protocols

1.5 Prerequisites/Preconditions

The protocol client is required to have a **URL** for the protocol server with which it wants to communicate, which is usually provided by the user as prompted in the client user interface. If required by the protocol server, the protocol client authenticates by using the underlying HTTP mechanisms, as described in [\[RFC2616\]](#) section 14.8.

The protocol client is also expected to have a valid document URL or list URL for use with this protocol.

1.6 Applicability Statement

This protocol is used to query information about, instantiate, or operate on workflows or workflow associations on a remote server.

1.7 Versioning and Capability Negotiation

This document covers versioning issues in the following areas:

- **Supported transports:** This protocol uses multiple transports with SOAP as described in section [2.1](#).
- **Localization:** This protocol includes text strings in various messages. Localization considerations for such strings are described in sections [2.2](#) and [3.1.4](#).

1.8 Vendor-Extensible Fields

The **AlterToDo** message contains a **TaskData** section that can be any set of XML nodes as described in section [3.1.4.1](#). These nodes can be used to alter the workflow task described by the message. This is described in section [4.3.5](#).

The **StartWorkflow** message contains a **workflowParameters** section that can be any set of XML nodes. These nodes are passed to the workflow that was created by sending this message. The implementation could validate, modify, replace, or remove data in this element. The vendor of the **workflow template** and any implementation that runs during a workflow is responsible for handling the contents of this node. This is described in section [4.3.4](#).

The XML node from the common **ToDoData** element defined in [2.2.3.2](#) can be any valid **Rowset** XML, as described in [\[MS-PRSTFR\]](#) section 2.4, and can be modified within the constraints of that protocol specification. For example, the implementer could validate a URL in this node or add other attributes to an **rs:row** element that conforms to the specification. This is described in section [4.3.1](#).

The **WorkflowTemplates.WorkflowTemplate.AssociationData** node of the common **TemplateData** element, as defined in [2.2.3.1](#), can be any set of XML nodes. These nodes are passed from the workflow association to the protocol client. The implementer of the workflow template and any logic that creates this workflow association are responsible for the contents of this node. This is described in section [4.3.2](#).

The **WorkflowTemplates.WorkflowTemplate.Metadata** node of the common **TemplateData** element, as defined in [2.2.3.1](#) can contain up to five extensible nodes. These nodes are **WorkflowTemplates.WorkflowTemplate.Metadata.Instantiation_FormURN**, **WorkflowTemplates.WorkflowTemplate.Metadata.Instantiation_FormURI**, **WorkflowTemplates.WorkflowTemplate.Metadata.InitiationCategories**, **WorkflowTemplates.WorkflowTemplate.Metadata.AssignmentStagesName**, and **WorkflowTemplates.WorkflowTemplate.Metadata.SigClientSettings**. The vendor of the workflow template is responsible for the existence and contents of these nodes. Implementers of this protocol that send the **StartWorkflow** message can use the contents of these nodes to restrict, modify, or suggest contents of the **workflowParameters** node of the **StartWorkflow** message. This is described in section [4.3.3](#).

1.9 Standards Assignments

None.

2 Messages

2.1 Transport

Protocol servers MUST support SOAP over HTTP. Protocol servers SHOULD additionally support SOAP over HTTPS for securing communication with clients.

Protocol messages MUST be formatted as specified in [\[SOAP1.1\]](#) section 4, or [\[SOAP1.2-1/2007\]](#) section 5. Protocol server faults MUST be returned either using HTTP Status Codes as specified in [\[RFC2616\]](#) section 10 or using **SOAP faults** as specified in [\[SOAP1.1\]](#) section 4.4, or [\[SOAP1.2-1/2007\]](#) section 5.4, SOAP Fault.

2.2 Common Message Syntax

This section contains common definitions that are used by this protocol. The syntax of the definitions uses **XML schema**, as specified in [\[XMLSCHEMA1/2\]](#) and [\[XMLSCHEMA2/2\]](#), and **WSDL**, as specified in [\[WSDL\]](#).

2.2.1 Namespaces

This specification defines and references various **XML namespaces** using the mechanisms specified in [\[XMLNS\]](#). Although this specification associates a specific XML namespace prefix for each XML namespace that is used, the choice of any particular XML namespace prefix is implementation-specific and not significant for interoperability.

Prefix	Namespace URI	Reference
soap	http://schemas.xmlsoap.org/wsdl/soap/	[SOAP1.1]
tns	http://schemas.microsoft.com/sharepoint/soap/workflow/	
s1	http://microsoft.com/wsdl/types/	
s	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
soap12	http://schemas.xmlsoap.org/wsdl/soap12/	[SOAP1.2-1/2007] [SOAP1.2-2/2007]
(none)	http://schemas.microsoft.com/sharepoint/soap/workflow/	
wsdl	http://schemas.xmlsoap.org/wsdl/	[WSDL]
xsi	http://www.w3.org/2001/XMLSchema-instance	[XMLSCHEMA1] [XMLSCHEMA2]
xsd	http://www.w3.org/2001/XMLSchema	[XMLSCHEMA1] [XMLSCHEMA2]
dt	uuid:C2F41010-65B3-11d1-A29F-00AA00C14882	
rs	urn:schemas-microsoft-com:rowset	[MS-PRSTFR]
z	#RowsetSchema	[MS-PRSTFR]

2.2.2 Messages

This specification does not define any common **WSDL** message definitions.

2.2.3 Elements

The following table summarizes the set of common **XML schema** element definitions defined by this specification. XML schema element definitions that are specific to a particular operation are described with the operation.

Element	Description
TemplateData	Specifies a set of workflow associations.
ToDoData	Specifies a set of workflow tasks.

2.2.3.1 TemplateData

The **TemplateData** element specifies a set of workflow associations for a protocol client as follows:

```
<s:element name="TemplateData" >
  <s:complexType>
    <s:sequence>
      <s:element name="Web" minOccurs="1" maxOccurs="1" >
        <s:complexType>
          <s:attribute name="Title" type="s:string" use="required" />
          <s:attribute name="Url" type="s:string" use="required" />
        </s:complexType>
      </s:element>
      <s:element name="List" minOccurs="1" maxOccurs="1" >
        <s:complexType>
          <s:attribute name="Title" type="s:string" use="required" />
          <s:attribute name="Url" type="s:string" use="required" />
        </s:complexType>
      </s:element>
      <s:element name="WorkflowTemplates" >
        <s:complexType>
          <s:sequence>
            <s:element name="WorkflowTemplate" minOccurs="0" maxOccurs="unbounded">
              <s:complexType>
                <s:sequence>
                  <s:element name="WorkflowTemplateIdSet" minOccurs="1" maxOccurs="1">
                    <s:complexType>
                      <s:attribute name="TemplateId" type="s1:guid" use="required" />
                      <s:attribute name="BaseId" type="s1:guid" use="required" />
                    </s:complexType>
                  </s:element>
                  <s:element name="AssociationData" minOccurs="0" maxOccurs="1" >
                    <s:complexType>
                      <s:sequence>
                        <s:any/>
                      </s:sequence>
                    </s:complexType>
                  </s:element>
                  <s:element name="Metadata" minOccurs="1" maxOccurs="1">
                    <s:complexType>

```

```

        </s:complexType>
    </s:element>
    <s:element name="Instantiation_FormURN" minOccurs="0"
maxOccurs="1">
        <s:complexType>
            <s:sequence>
                <s:any/>
            </s:sequence>
        </s:complexType>
    </s:element>
    <s:element name="Instantiation FormURI" minOccurs="0"
maxOccurs="1">
        <s:complexType>
            <s:sequence>
                <s:any/>
            </s:sequence>
        </s:complexType>
    </s:element>
    <s:element name="AssignmentStagesName" minOccurs="0" maxOccurs="1">
        <s:complexType>
            <s:sequence>
                <s:any/>
            </s:sequence>
        </s:complexType>
    </s:element>
    <s:element name="SigClientSettings" minOccurs="0" maxOccurs="1">
        <s:complexType>
            <s:sequence>
                <s:any/>
            </s:sequence>
        </s:complexType>
    </s:element>
</s:all>

    </s:complexType>
</s:element>
</s:sequence>
<s:attribute name="Name" type="s:string" use="required" />
<s:attribute name="Description" type="s:string" use="required" />
<s:attribute name="InstantiationUrl" type="s:string" />
</s:complexType>
</s:element>
</s:sequence>
</s:complexType>
</s:element>
</s:sequence>
</s:complexType>
</s:element>

```

Web.Title: The title of the **site** for this set of workflow associations.

Web.Url: A site URL for this set of workflow associations.

List.Title: The title of the list for this set of workflow associations.

List.Url: A list URL for this set of workflow associations.

WorkflowTemplates.WorkflowTemplate: A workflow association.

WorkflowTemplates.WorkflowTemplate.WorkflowTemplateIdSet.TemplateId: A **GUID** identifying this workflow association.

WorkflowTemplates.WorkflowTemplate.WorkflowTemplateIdSet.BaseId: A GUID identifying the workflow template upon which this workflow association is based.

WorkflowTemplates.WorkflowTemplate.Name: The name of this workflow association.

WorkflowTemplates.WorkflowTemplate.Description: The description of this workflow association.

WorkflowTemplates.WorkflowTemplate.InstantiationUrl: The **absolute URL** of a Web page that can create a new workflow instance of this workflow association.

WorkflowTemplates.WorkflowTemplate.AssociationData: Customized settings for this workflow association. This element **MUST** contain no attributes. This element **SHOULD** contain child elements.

WorkflowTemplates.WorkflowTemplate.Metadata.InitiationCategories: A string used to enable or disable creation of a new workflow instance. [<1>](#)

WorkflowTemplates.WorkflowTemplate.Metadata.Instantiation_FormURN: A string reference to a form displayed during creation of a new workflow instance.

WorkflowTemplates.WorkflowTemplate.Metadata.Instantiation_FormURI: A string reference to a URL for a form displayed during creation of a new workflow instance. This **SHOULD** be used as an alternate reference when **Instantiation_FormURN** is not supplied or as determined by the protocol server. [<2>](#)

WorkflowTemplates.WorkflowTemplate.Metadata.AssignmentStagesName: A string used for suggesting workflow tasks in the form referenced by either **Instantiation_FormURN** or **Instantiation_FormURI**.

WorkflowTemplates.WorkflowTemplate.Metadata.SigClientSettings: A string used for suggesting workflow tasks in the form referenced by either **Instantiation_FormURN** or **Instantiation_FormURI**.

2.2.3.2 ToDoData

The **ToDoData** element specifies a set of workflow tasks for a protocol client as follows:

```
<s:element name="ToDoData" >
  <s:complexType>
    <s:sequence>
      <s:element name="xml" type="rs:data" minOccurs="0" maxOccurs="1" />
    </s:sequence>
  </s:complexType>
</s:element>
```

xml: A set of **Rowsets** as specified in [\[MS-PRSTFR\]](#) section 2.4.

2.2.4 Complex Types

This specification does not define any common **XML schema** complex type definitions.

2.2.5 Simple Types

This specification does not define any common **XML schema** simple type definitions.

2.2.6 Attributes

This specification does not define any common **XML schema** attribute definitions.

2.2.7 Groups

This specification does not define any common **XML schema** group definitions.

2.2.8 Attribute Groups

This specification does not define any common **XML schema** attribute group definitions.

3 Protocol Details

The client side of this protocol is simply a pass-through. That is, no additional timers or other state is required on the client side of this protocol. Calls made by the higher-layer protocol or application are passed directly to the transport, and the results returned by the transport are passed directly back to the higher-layer protocol or application.

3.1 WorkflowSoap Server Details

The protocol server has a set of documents, installed workflow templates defined by vendors, and **workflow associations**.

The protocol client, given a document URL, can query the protocol server for information about a workflow association, workflow, workflow task, or any other data related to the document. The protocol client can then start new workflows with a known document URL and workflow association or modify known workflow tasks.

The protocol itself is stateless: messages can be sent in any order as long as the data required for such message is already known. The protocol server is expected to maintain any state or data related to any underlying objects, such as documents or workflows separate from this protocol.

3.1.1 Abstract Data Model

This section describes a conceptual model of possible data organization that an implementation maintains to participate in this protocol. The described organization is provided to facilitate the explanation of how the protocol behaves. This document does not mandate that implementations adhere to this model as long as their external behavior is consistent with that described in this document.

3.1.2 Timers

None.

3.1.3 Initialization

None.

3.1.4 Message Processing Events and Sequencing Rules

The following table summarizes the list of WSDL operations as defined by this specification:

Operation	Description
AlterToDo	Modifies a workflow task.
ClaimReleaseTask	Claims or releases a claim on a workflow task.
GetTemplatesForItem	Obtains a set of workflow associations that can be started on a new or existing document in a specified list.
GetToDosForItem	Obtains a set of workflow tasks for an existing document.
GetWorkflowDataForItem	Obtains an aggregated set of workflows, workflow associations, and workflow tasks for an existing document.
GetWorkflowTaskData	Retrieves data about a single workflow task.

Operation	Description
StartWorkflow	Instantiates a new workflow for an existing document and a workflow association.

3.1.4.1 AlterToDo

This operation is used to modify the values of Fields on a workflow task. It is defined as follows:

```
<wsdl:operation name="AlterToDo">
  <wsdl:input message="tns:AlterToDoSoapIn" />
  <wsdl:output message="tns:AlterToDoSoapOut" />
</wsdl:operation>
```

The protocol client sends an **AlterToDoSoapIn** request message, and the protocol server responds with an **AlterToDoSoapOut** response message.

3.1.4.1.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
AlterToDoSoapIn	The request to modify the values of Fields on a workflow task.
AlterToDoSoapOut	The response to a request to modify the values of Fields on a workflow task.

3.1.4.1.1.1 AlterToDoSoapIn

This is the message that requests the **AlterToDo** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/AlterToDo
```

The **SOAP body** contains an **AlterToDo** element.

3.1.4.1.1.2 AlterToDoSoapOut

This is the message that responds to the **AlterToDo** SOAP operation.

The SOAP body contains an **AlterToDoResponse** element.

3.1.4.1.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
AlterToDo	The request to modify the values of Fields on a workflow task.
AlterToDoResponse	Contains the response to a request to modify the values of Fields on a workflow task.

3.1.4.1.2.1 AlterToDo

This element is sent with **AlterToDoSoapIn** and specifies the workflow task to be modified, as well as the fields and values to be modified. It is defined as follows:

```
<s:element name="AlterToDo">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1" />
      <s:element name="todoId" type="s:int" minOccurs="1" maxOccurs="1" />
      <s:element name="todoListId" type="sl:guid" minOccurs="1" maxOccurs="1" />
      <s:element name="taskData" minOccurs="0" maxOccurs="1" >
        <s:complexType>
          <s:sequence>
            <s:any/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: A URL to a document on this site (2). The server MUST ignore this value unless the site (2) of the SOAP request URL does not contain a list with the specified **todoListId**. If the SOAP request URL does not contain such a list, this field MUST be the site URL of the specified **todoListId**.

todoId: A **list item identifier** identifying a workflow task to be modified.

todoListId: A **list identifier** of the workflow task to be modified.

taskData: Contains a set of elements representing field names and values to be altered on a workflow task. **taskData** SHOULD NOT be null. If **taskData** is not present, then the server will return a SOAP fault with error string "Value cannot be null.\nParameter name: taskData".

3.1.4.1.2.2 AlterToDoResponse

This element is sent with **AlterToDoSoapOut** and specifies whether the **AlterToDo** operation was successful. It is defined as follows:

```
<s:element name="AlterToDoResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="AlterToDoResult" minOccurs="1" maxOccurs="1" >
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="fSuccess" type="s:int" minOccurs="1" maxOccurs="1" />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

</s:element>

AlterToDoResult.fSuccess: If the operation was successful, this MUST be set to 1. Otherwise, this MUST be set to zero. The success of this operation is determined by the protocol server, and MUST NOT substitute for a **SOAP fault** or HTTP Status Code in the case of a protocol server fault.

3.1.4.2 ClaimReleaseTask

This operation **claims** or releases a claim on workflow task. It is defined as follows:

```
<wsdl:operation name="ClaimReleaseTask">
  <wsdl:input message="tns:ClaimReleaseTaskSoapIn" />
  <wsdl:output message="tns:ClaimReleaseTaskSoapOut" />
</wsdl:operation>
```

The protocol client sends a **ClaimReleaseTaskSoapIn** request message, and the protocol server responds with a **ClaimReleaseTaskSoapOut** response message.

3.1.4.2.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
ClaimReleaseTaskSoapIn	The request to claim or release a claim on a workflow task.
ClaimReleaseTaskSoapOut	The response to a request to claim or release a claim on a workflow task.

3.1.4.2.1.1 ClaimReleaseTaskSoapIn

This message requests the **ClaimReleaseTask** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/ClaimReleaseTask
```

The SOAP body contains a **ClaimReleaseTask** element.

3.1.4.2.1.2 ClaimReleaseTaskSoapOut

This message responds to the **ClaimReleaseTask** SOAP operation.

The SOAP body contains a **ClaimReleaseTaskResponse** element.

3.1.4.2.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
ClaimReleaseTask	The request to claim or release a claim on a workflow task.
ClaimReleaseTaskResponse	Contains the response to a request to claim or release a claim on a workflow task.

3.1.4.2.2.1 ClaimReleaseTask

This element is sent with **ClaimReleaseTaskSoapIn** and specifies the workflow task on which to operate, and whether the operation is to claim or to release a claim. It is defined as follows:

```
<s:element name="ClaimReleaseTask">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
      <s:element name="taskId" type="s:int" minOccurs="1" maxOccurs="1"/>
      <s:element name="listId" type="s1:guid" minOccurs="1" maxOccurs="1"/>
      <s:element name="fClaim" type="s:boolean" minOccurs="1" maxOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: The URL of a document on this site. The server **MUST** ignore this value unless the site of the SOAP request URL does not contain a list with the specified **listId**. If such a list is contained, this field **MUST** be set to the site URL of the specified **listId**.

taskId: The list item identifier for a specified workflow task that is to be claimed or released from a claim.

listId: The list identifier for a specified workflow task that is to be claimed or released from a claim.

fClaim: A Boolean that specifies whether the operation is a claim or a release. This **MUST** be set to TRUE if the operation is a claim and **MUST** be set to FALSE if the operation is to release a claim.

3.1.4.2.2.2 ClaimReleaseTaskResponse

This element is sent with **ClaimReleaseTaskSoapOut**. It describes the workflow task that was claimed or released after a **ClaimReleaseTask** operation. It is defined as follows:

```
<s:element name="ClaimReleaseTaskResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="ClaimReleaseTaskResult" minOccurs="1">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="TaskData" minOccurs="1" maxOccurs="1">
              <s:complexType>
                <s:sequence>
                  <s:attribute name="AssignedTo" type="s:string" use="required"/>
                  <s:attribute name="TaskGroup" type="s:string" use="required"/>
                  <s:attribute name="ItemId" type="s:int" use="required"/>
                  <s:attribute name="ListId" type="s1:guid" use="required"/>
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

```

    </s:sequence>
  </s:complexType>
</s:element>

```

ClaimReleaseTaskResult.TaskData.AssignedTo: The user to whom this workflow task is now assigned. This MUST be the user authenticated in section 1.5 if this operation is a claim and the protocol server requires authentication.

ClaimReleaseTaskResult.TaskData.TaskGroup: The **group** to whom this workflow task is now assigned.

ClaimReleaseTaskResult.TaskData.ItemId: A list item identifier of a workflow task.

ClaimReleaseTaskResult.TaskData.ListId: The list identifier of the workflow task.

3.1.4.3 GetTemplatesForItem

This operation obtains a set of workflow associations for a new or existing document. It is defined as follows:

```

<wsdl:operation name="GetTemplatesForItem">
  <wsdl:input message="tns:GetTemplatesForItemSoapIn" />
  <wsdl:output message="tns:GetTemplatesForItemSoapOut" />
</wsdl:operation>

```

The protocol client sends a **GetTemplatesForItemSoapIn** request message, and the protocol server responds with a **GetTemplatesForItemSoapOut** response message.

3.1.4.3.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
GetTemplatesForItemSoapIn	The request for a set of workflow associations for a new or existing document.
GetTemplatesForItemSoapOut	The response to a request for a set of workflow associations for a new or existing document.

3.1.4.3.1.1 GetTemplatesForItemSoapIn

This message is sent to request the **GetTemplatesForItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```

http://schemas.microsoft.com/sharepoint/soap/workflow/GetTemplatesForItem

```

The SOAP body contains a **GetTemplatesForItem** element.

3.1.4.3.1.2 GetTemplatesForItemSoapOut

This message is the response to the **GetTemplatesFromItem** SOAP operation.

The SOAP body contains a **GetTemplatesForItemResponse** element.

3.1.4.3.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetTemplatesForItem	The request for a set of workflow associations for a new or existing document.
GetTemplatesForItemResponse	Contains the response to a request for a set of workflow associations for a new or existing document.

3.1.4.3.2.1 GetTemplatesForItem

This element is sent with a **GetTemplatesForItemSoapIn** message. It is defined as follows:

```
<s:element name="GetTemplatesForItem">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: A document URL or a list URL. If this parameter ends with a slash (/), it MUST be a valid list URL. Otherwise, it MUST be a valid document URL.

3.1.4.3.2.2 GetTemplatesForItemResponse

This element is sent with a **GetTemplatesForItemSoapOut** message. It is defined as follows:

```
<s:element name="GetTemplatesForItemResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetTemplatesForItemResult" minOccurs="0">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="TemplateData" ref="tns:TemplateData" minOccurs="1"
maxOccurs="1"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

GetTemplatesForItemResult: Contains a **TemplateData** element as specified in section [2.2.3.1](#) that specifies a set of workflow associations.

3.1.4.4 GetToDosForItem

This operation obtains a set of workflow tasks for a document. It is defined as follows:

```

<wsdl:operation name="GetToDosForItem">
  <wsdl:input message="tns:GetToDosForItemSoapIn" />
  <wsdl:output message="tns:GetToDosForItemSoapOut" />
</wsdl:operation>

```

The protocol client sends a **GetToDosForItemSoapIn** request message, and the protocol server responds with a **GetToDosForItemSoapOut** response message.

3.1.4.4.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
GetToDosForItemSoapIn	The request for a set of workflow tasks for a document.
GetToDosForItemSoapOut	The response to a request for a set of workflow tasks for a document.

3.1.4.4.1.1 GetToDosForItemSoapIn

This message requests the **GetToDosForItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetToDosForItem
```

The SOAP body contains a **GetToDosForItem** element.

3.1.4.4.1.2 GetToDosForItemSoapOut

This message is the response to the **GetToDosForItem** SOAP operation.

The SOAP body contains a **GetToDosForItemResponse** element.

3.1.4.4.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetToDosForItem	The request for a set of workflow tasks for a document.
GetToDosForItemResponse	Contains the response to a request for a set of workflow tasks for a document.

3.1.4.4.2.1 GetToDosForItem

This element is sent with a **GetToDosForItem** message.

```

<s:element name="GetToDosForItem">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>

```

item: The URL of a document.

3.1.4.4.2 GetToDosForItemResponse

This element is the response to a **GetToDosForItem** message.

```

<s:element name="GetToDosForItemResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetToDosForItemResult" minOccurs="0">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="ToDoData" ref="s1:ToDoData" minOccurs="1" maxOccurs="1"/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>

```

GetToDosForItemResult: Contains a **ToDoData** element as specified in section [2.2.3.2](#) containing data about a set of workflow tasks.

3.1.4.5 GetWorkflowDataForItem

This operation queries a set of workflow associations, workflow tasks, and workflows for a document. This operation retrieves some of the same data that **GetToDosForItem** and **GetTemplatesForItem** retrieve, as well as additional data.

```

<wsdl:operation name="GetWorkflowDataForItem">
  <wsdl:input message="tns:GetWorkflowDataForItemSoapIn" />
  <wsdl:output message="tns:GetWorkflowDataForItemSoapOut" />
</wsdl:operation>

```

The protocol client sends a **GetWorkflowDataForItemSoapIn** request message, and the protocol server responds with a **GetWorkflowDataForItemSoapOut** response message.

3.1.4.5.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
GetWorkflowDataForItemSoapIn	The request to query a set of workflow associations, workflow tasks, and workflows for a document.
GetWorkflowDataForItemSoapOut	The response to a request to query a set of workflow

Message	Description
	associations, workflow tasks, and workflows for a document.

3.1.4.5.1.1 GetWorkflowDataForItemSoapIn

This message requests the **GetWorkflowDataForItem** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowDataForItem
```

The SOAP body contains a **GetWorkflowDataForItem** element.

3.1.4.5.1.2 GetWorkflowDataForItemSoapOut

This message is the response to the **GetWorkflowDataForItem** SOAP operation.

The SOAP body contains a **GetWorkflowDataForItemResponse** element.

3.1.4.5.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetWorkflowDataForItem	The request to query a set of workflow associations, workflow tasks, and workflows for a document.
GetWorkflowDataForItemResponse	Contains the response to a request to query a set of workflow associations, workflow tasks, and workflows for a document.

3.1.4.5.2.1 GetWorkflowDataForItem

This element is sent with a **GetWorkflowDataForItem** message. It is defined as follows:

```
<s:element name="GetWorkflowDataForItem">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: A document URL.

3.1.4.5.2.2 GetWorkflowDataForItemResponse

This element is the response to a **GetWorkflowDataForItem** message. It is defined as follows:

```

<s:element name="GetWorkflowDataForItemResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="GetWorkflowDataForItemResult" minOccurs="1" maxOccurs="1">
        <s:complexType>
          <s:sequence>
            <s:element name="WorkflowData" minOccurs="1" maxOccurs="1">
              <s:complexType>
                <s:sequence>
                  <s:element name="ToDoData" ref="s1:ToDoData" minOccurs="1" maxOccurs="1" />
                  <s:element name="TemplateData" ref="tns:TemplateData" minOccurs="1"
maxOccurs="1" />
                  <s:element name="ActiveWorkflowsData" minOccurs="1" maxOccurs="1" >
                    <s:complexType>
                      <s:sequence>
                        <s:element name="Workflows" minOccurs="1" maxOccurs="1" >
                          <s:complexType>
                            <s:sequence>
                              <s:element name="Workflow" minOccurs="0" maxOccurs="unbounded">
                                <s:complexType>
                                  <s:attribute name="StatusPageUrl" type="s:string"
use="required"/>
                                  <s:attribute name="Id" type="s1:guid" use="required" />
                                  <s:attribute name="TemplateId" type="s1:guid"
use="required" />
                                  <s:attribute name="ListId" type="s1:guid" use="required"/>
                                  <s:attribute name="SiteId" type="s1:guid" use="required" />
                                  <s:attribute name="WebId" type="s1:guid" use="required"/>
                                  <s:attribute name="ItemId" type="s:int" use="required"/>
                                  <s:attribute name="ItemGUID" type="s1:guid"
use="required"/>
                                  <s:attribute name="TaskListId" type="s1:guid"
use="required"/>
                                  <s:attribute name="AdminTaskListId" type="s:string"
use="required"/>
                                  <s:attribute name="Author" type="s:int" use="required"/>
                                  <s:attribute name="Modified" type="s:string"
use="required"/>
                                  <s:attribute name="Created" type="s:string"
use="required"/>
                                  <s:attribute name="StatusVersion" type="s:int"
use="required"/>
                                  <s:attribute name="Status1" type="s:int" use="required"/>
                                  <s:attribute name="Status2" type="s:string"
use="required"/>
                                  <s:attribute name="Status3" type="s:string"
use="required"/>
                                  <s:attribute name="Status4" type="s:string"
use="required"/>
                                  <s:attribute name="Status5" type="s:string"
use="required"/>
                                  <s:attribute name="Status6" type="s:string"
use="required"/>
                                  <s:attribute name="Status7" type="s:string"
use="required"/>
                                  <s:attribute name="Status8" type="s:string"
use="required"/>
                                  <s:attribute name="Status9" type="s:string"
use="required"/>
                                  <s:attribute name="Status10" type="s:string"
use="required"/>
                                  <s:attribute name="TextStatus1" type="s:string"
use="required"/>
                                  <s:attribute name="TextStatus2" type="s:string"
use="required"/>
                                  <s:attribute name="TextStatus3" type="s:string"
use="required"/>
                                  <s:attribute name="TextStatus4" type="s:string"
use="required"/>
                                </s:complexType>
                              </s:sequence>
                            </s:complexType>
                          </s:element>
                        </s:sequence>
                      </s:complexType>
                    </s:element>
                  </s:sequence>
                </s:complexType>
              </s:element>
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>

```


GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ListId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.SiteId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.WebId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ItemId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ItemGUID: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TaskListId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.AdminTaskListId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Author: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Modified: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Created: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.StatusVersion: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status1: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status2: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status3: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status4: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status5: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status6: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status7: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status8: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status9: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Status10: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus1: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus2: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus3: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus4: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.TextStatus5: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.Modifications: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ActivityDetails: Unused. The protocol client MUST ignore this value. <3>

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.CorrelationId: The value is an empty string or GUID format if it is present. Unused. The protocol client MUST ignore this GUID. <4>

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.InstanceData: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.InstanceDataSize: Unused. The protocol client MUST ignore this value.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.InternalState: A 32-bit mask describing the state of the workflow. The only valid values of the Workflow Internal State bits are specified as follows:

Value	Name	Meaning
0x00000001	WFS_LOCKED	A front-end Web server has locked the workflow for processing. No other front-end Web server can process the workflow.
0x00000002	WFS_RUNNING	A front-end Web server is processing the workflow.
0x00000004	WFS_COMPLETED	The workflow has completely processed. No further processing can be done.
0x00000008	WFS_CANCELED	The workflow was canceled by a user. No further processing can be done.
0x00000040	WFS_FAULTING	The workflow has encountered a faulting error.
0x00000080	WFS_TERMINATED	The workflow was terminated before being completely processed. No further processing can be done.
0x00000100	WFS_SUSPENDED	The workflow was suspended. The workflow can resume running.

Value	Name	Meaning
0x00000400	WFS_HASNEWEVENTS	The workflow has events that need to be processed.
0x00000800	WFS_NOTSTARTED	The workflow has not yet started running.
0x00001000	WFS_HASWAKEUPTIME	A work item has been created to resume processing the workflow.

GetWorkflowDataForItemResult.WorkflowData.ActiveWorkflowsData.Workflows.Workflow.ProcessingId: Unused. The protocol client MUST ignore this GUID.

GetWorkflowDataForItemResult.WorkflowData.DefaultWorkflows.DefaultWorkflow: Specifies the default workflow association defined by the server to start when a document is checked in.

GetWorkflowDataForItemResult.WorkflowData.DefaultWorkflows.DefaultWorkflow.Event: MUST be set to "OnCheckInMajor".

GetWorkflowDataForItemResult.WorkflowData.DefaultWorkflows.DefaultWorkflow.TemplateId: A workflow association identifier.

3.1.4.6 GetWorkflowTaskData

This operation retrieves data about a single workflow task. It is defined as follows:

```
<wsdl:operation name="GetWorkflowTaskData">
  <wsdl:input message="tns:GetWorkflowTaskDataSoapIn" />
  <wsdl:output message="tns:GetWorkflowTaskDataSoapOut" />
</wsdl:operation>
```

The protocol client sends a **GetWorkflowTaskDataSoapIn** request message, and the protocol server responds with a **GetWorkflowTaskDataSoapOut** response message.

3.1.4.6.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
GetWorkflowTaskDataSoapIn	The request to retrieve data about a single workflow task.
GetWorkflowTaskDataSoapOut	The response to a request to retrieve data about a single workflow task.

3.1.4.6.1.1 GetWorkflowTaskDataSoapIn

This message requests the **GetWorkflowTaskData** SOAP operation.

The SOAP action value of the message is defined as follows:

The SOAP body contains a **GetWorkflowTaskData** element.

3.1.4.6.1.2 GetWorkflowTaskDataSoapOut

This message is the response to the **GetWorkflowTaskData** SOAP operation.

The SOAP body contains a **GetWorkflowTaskDataResponse** element.

3.1.4.6.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
GetWorkflowTaskData	The request to retrieve data about a single workflow task.
GetWorkflowTaskDataResponse	Contains the response to a request to retrieve data about a single workflow task.

3.1.4.6.2.1 GetWorkflowTaskData

This element is sent with a **GetWorkflowTaskData** message. It is defined as follows:

```
<s:element name="GetWorkflowTaskData">  
  <s:complexType>  
    <s:sequence>  
      <s:element name="item" type="s:string" minOccurs="1"/>  
      <s:element name="taskId" type="s:int"/>  
      <s:element name="listId" type="sl:guid"/>  
    </s:sequence>  
  </s:complexType>  
</s:element>
```

item: The URL of a document on this site (2). The server MUST ignore this value unless the site (2) of the SOAP request URL does not contain a list with the specified **listId**. If the site (2) of the SOAP request URL does not contain a list with the specified **listId**, **item** MUST be the site URL of the specified **listId**.

taskId: An integer identifying a workflow task.

listId: A **list identifier** that MUST identify the list of the workflow task specified by **taskId**.

3.1.4.6.2.2 GetWorkflowTaskDataResponse

This element is the response to a **GetWorkflowTaskData** message. It is defined as follows:

```
<s:element name="GetWorkflowTaskDataResponse">  
  <s:complexType>  
    <s:sequence>  
      <s:element name="GetWorkflowTaskDataResult" >  
        <s:complexType>  
          <s:sequence>
```

```

        <s:any minOccurs="0" maxOccurs="unbounded" />
      </s:sequence>
    </s:complexType>      </s:element>
  </s:sequence>
</s:complexType>
</s:element>

```

GetWorkflowTaskDataResult: The **GetWorkflowTaskDataResult** element contains an array of **z:row** elements, where the z is equal to #RowsetSchema in the ActiveX Data Objects (ADO) XML Persistence format (see [\[MS-PRSTFR\]](#)). Each **z:row** element describes a single list item. The names of the attributes of this element correspond to the names of fields in the list. (For more details, see [\[MS-WSSF03\]](#).)

3.1.4.7 StartWorkflow

This operation starts a new workflow, generating a workflow from a workflow association. It is defined as follows:

```

<wsdl:operation name="StartWorkflow">
  <wsdl:input message="tns:StartWorkflowSoapIn" />
  <wsdl:output message="tns:StartWorkflowSoapOut" />
</wsdl:operation>

```

The protocol client sends a **StartWorkflowSoapIn** request message, and the protocol server responds with a **StartWorkflowSoapOut** response message.

The protocol server MUST NOT start multiple workflow instances of the same item and same workflow association using this operation.

3.1.4.7.1 Messages

The following table summarizes the set of **WSDL** message definitions that are specific to this operation.

Message	Description
StartWorkflowSoapIn	The request to start a new workflow, generating a workflow from a workflow association.
StartWorkflowSoapOut	The response to a request to start a new workflow.

3.1.4.7.1.1 StartWorkflowSoapIn

This message requests the **StartWorkflow** SOAP operation.

The SOAP action value of the message is defined as follows:

```
http://schemas.microsoft.com/sharepoint/soap/workflow/StartWorkflow
```

The SOAP body contains a **StartWorkflow** element.

3.1.4.7.1.2 StartWorkflowSoapOut

This message is the response to the **StartWorkflow** SOAP operation.

The SOAP body contains a **StartWorkflowResponse** element.

3.1.4.7.2 Elements

The following table summarizes the **XML schema** element definitions that are specific to this operation.

Element	Description
StartWorkflow	The request to start a new workflow, generating a workflow from a workflow association.
StartWorkflowResponse	Contains the response to a request to start a new workflow.

3.1.4.7.2.1 StartWorkflow

This element is sent with a **StartWorkflow** message. It is defined as follows:

```
<s:element name="StartWorkflow">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
      <s:element name="templateId" type="sl:guid"/>
      <s:element name="workflowParameters" minOccurs="0">
        <s:complexType mixed="true">
          <s:sequence>
            <s:any/>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
```

item: A document URL. This field **MUST** be both a **fully qualified URL** and an **absolute URL**.

templateId: A GUID that identifies a workflow association that can be started for the document. This can be retrieved from the **TemplateId** attribute of a **WorkflowTemplateIdSet** element as specified in section [2.2.3.1](#).

workflowParameters: XML to be used by the workflow upon creation. This element is considered vendor-extensible and is described in section [4.3.2](#). **workflowParameters** **SHOULD NOT** be null.

3.1.4.7.2.2 StartWorkflowResponse

This element is the response to a **StartWorkflow** message. It is defined as follows:

```
<s:element name="StartWorkflowResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="StartWorkflowResult" minOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
```

StartWorkflowResult: This element is unused. The protocol client **MUST** ignore this element.

3.1.5 Timer Events

None.

3.1.6 Other Local Events

None.

4 Protocol Examples

4.1 Create a Workflow Instance

By retrieving information about the available workflow associations, a protocol client can start a new workflow on a document. The following diagram shows how this is done.

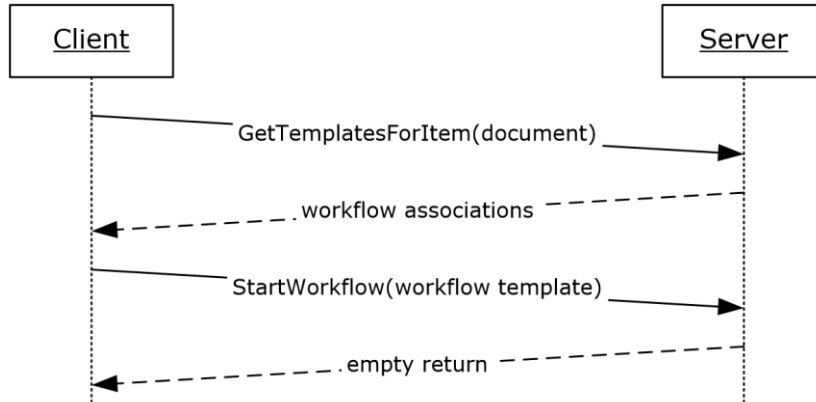


Figure 2: Creating a new workflow instance

4.1.1 Retrieve Available Workflow Associations

To retrieve the set of workflow associations for a list known as Documents (given its URL), the protocol client sends the following SOAP message as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <GetTemplatesForItem xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
      <item>http://server/Documents/</item>
    </GetTemplatesForItem>
  </soap:Body>
</soap:Envelope>
```

The protocol server finds the appropriate set of workflow associations for the list known as Documents (given its URL) and returns the set in the form of the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <GetTemplatesForItemResponse
      xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
      <GetTemplatesForItemResult>
        <TemplateData>
          <Web Title="Site" Url="http://server" />
          <List Title="Documents" Url="http://server/Documents" />
          <WorkflowTemplates>
            <WorkflowTemplate Name="Collect Feedback" Description="Routes a document
              for review. Reviewers can provide feedback, which is compiled and sent to the document owner
              when the workflow has completed." />
          </WorkflowTemplates>
        </TemplateData>
      </GetTemplatesForItemResult>
    </GetTemplatesForItemResponse>
  </soap:Body>
</soap:Envelope>
```

```

InstantiationUrl="http://server/documents/_layouts/IniWrkflIP.aspx?List=6dc0f376-503e-4a7b-
b74f-b4b148a42772&ID=1&TemplateID={092dd5a9-78da-4ab5-b00f-320090113b81}">
  <WorkflowTemplateIdSet TemplateId="092dd5a9-78da-4ab5-b00f-320090113b81"
BaseId="46c389a4-6e18-476c-aa17-289b0c79fb8f" />
  <AssociationData>
    <string>
      <my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD" xml:lang="en-us">
        <my:Reviewers>
        </my:Reviewers>
        <my:CC>
        </my:CC>
        <my:DueDate xsi:nil="true">
        </my:DueDate>
        <my:Description>
        </my:Description>
        <my>Title>
        </my>Title>
        <my:DefaultTaskType>0</my:DefaultTaskType>
        <my:CreateTasksInSerial>>false</my:CreateTasksInSerial>
        <my:AllowDelegation>>true</my:AllowDelegation>
        <my:AllowChangeRequests>>true</my:AllowChangeRequests>
        <my:StopOnAnyReject xsi:nil="true">
        </my:StopOnAnyReject>
        <my:WantedTasks xsi:nil="true">
        </my:WantedTasks>
        <my:SetMetadataOnSuccess>>false</my:SetMetadataOnSuccess>
        <my:MetadataSuccessField>
        </my:MetadataSuccessField>
        <my:MetadataSuccessValue>
        </my:MetadataSuccessValue>
        <my:ApproveWhenComplete>>false</my:ApproveWhenComplete>
        <my:TimePerTaskVal xsi:nil="true">
        </my:TimePerTaskVal>
        <my:TimePerTaskType xsi:nil="true">
        </my:TimePerTaskType>
        <my:Voting>>false</my:Voting>
        <my:MetadataTriggerField>
        </my:MetadataTriggerField>
        <my:MetadataTriggerValue>
        </my:MetadataTriggerValue>
        <my:InitLock>>false</my:InitLock>
        <my:MetadataStop>>false</my:MetadataStop>
        <my:ItemChangeStop>>false</my:ItemChangeStop>
        <my:GroupTasks>>false</my:GroupTasks>
        </my:myFields>
      </string>
    </AssociationData>
    <Metadata>
      <Instantiation FormURN>
        <string>urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Init:$Subst:LCID;</string>
      </Instantiation_FormURN>
    </Metadata>
  </WorkflowTemplate>
  <WorkflowTemplate Name="Collect Signatures" Description="Gathers signatures
needed to complete a document. This workflow can be started only from within a client.">
    <WorkflowTemplateIdSet TemplateId="fd7a5c57-fd96-4656-a07e-712b485201e0"
BaseId="2f213931-3b93-4f81-b021-3022434a3114" />
    <Metadata>
      <InitiationCategories>
        <string>SigClientRequired</string>
      </InitiationCategories>
      <Instantiation FormURN>
        <string>urn:schemas-microsoft-
com:office:infopath:workflow:CollectSignatures-Init:$Subst:LCID;</string>
      </Instantiation_FormURN>
    </Metadata>
  </WorkflowTemplate>

```

```

        <WorkflowTemplate Name="Approval" Description="Routes a document for approval.
        Approvers can approve or reject the document, reassign the approval task, or request changes
        to the document."
        InstantiationUrl="http://server/Documents/_layouts/IniWrkflIP.aspx?List=6dc0f376-503e-4a7b-
        b74f-b4b148a42772&ID=1&TemplateID={f002dd2c-cdba-4e9a-b9ff-cad76df6e4e7}">
        <WorkflowTemplateIdSet TemplateId="f002dd2c-cdba-4e9a-b9ff-cad76df6e4e7"
        BaseId="c6964bff-bf8d-41ac-ad5e-b61ec11731c" />
        <AssociationData>
        <string>
        <my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD" xml:lang="en-us">
        <my:Reviewers>
        </my:Reviewers>
        <my:CC>
        </my:CC>
        <my:DueDate xsi:nil="true">
        </my:DueDate>
        <my:Description>
        </my:Description>
        <my:Title>
        </my:Title>
        <my:DefaultTaskType>1</my:DefaultTaskType>
        <my:CreateTasksInSerial>true</my:CreateTasksInSerial>
        <my:AllowDelegation>true</my:AllowDelegation>
        <my:AllowChangeRequests>true</my:AllowChangeRequests>
        <my:StopOnAnyReject xsi:nil="true">
        </my:StopOnAnyReject>
        <my:WantedTasks xsi:nil="true">
        </my:WantedTasks>
        <my:SetMetadataOnSuccess>false</my:SetMetadataOnSuccess>
        <my:MetadataSuccessField>
        </my:MetadataSuccessField>
        <my:MetadataSuccessValue>
        </my:MetadataSuccessValue>
        <my:ApproveWhenComplete>false</my:ApproveWhenComplete>
        <my:TimePerTaskVal xsi:nil="true">
        </my:TimePerTaskVal>
        <my:TimePerTaskType xsi:nil="true">
        </my:TimePerTaskType>
        <my:Voting>false</my:Voting>
        <my:MetadataTriggerField>
        </my:MetadataTriggerField>
        <my:MetadataTriggerValue>
        </my:MetadataTriggerValue>
        <my:InitLock>false</my:InitLock>
        <my:MetadataStop>false</my:MetadataStop>
        <my:ItemChangeStop>false</my:ItemChangeStop>
        <my:GroupTasks>false</my:GroupTasks>
        </my:myFields>
        </string>
        </AssociationData>
        <Metadata>
        <Instantiation_FormURN>
        <string>urn:schemas-microsoft-
        com:office:infopath:workflow:ReviewRouting-Init:$Subst:LCID;</string>
        </Instantiation_FormURN>
        </Metadata>
        </WorkflowTemplate>
    </WorkflowTemplates>
</TemplateData>
</GetTemplatesForItemResult>
</GetTemplatesForItemResponse>
</soap:Body>
</soap:Envelope>

```

4.1.2 Start a Workflow from a Known Workflow Association

To start a new workflow from a known workflow association on a document, the protocol client sends the following SOAP message as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <StartWorkflow xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
      <item>http://server/Documents/Document.xml</item>
      <templateId>8637567d-fd4a-4bbc-a994-7854df1ebd7a</templateId>
      <workflowParameters>
        <my:myFields xml:lang="en-us" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD">
          <my:Reviewers>
            <my:Person>
              <my:DisplayName>User</my:DisplayName>
              <my:AccountId>DOMAIN\user</my:AccountId>
              <my:AccountType>User</my:AccountType>
            </my:Person>
          </my:Reviewers>
          <my:CC>
          </my:CC>
          <my:DueDate xsi:nil="true">
          </my:DueDate>
          <my:Description>
          </my:Description>
          <my>Title>
          </my>Title>
          <my:DefaultTaskType>0</my:DefaultTaskType>
          <my>CreateTasksInSerial>>false</my>CreateTasksInSerial>
          <my:AllowDelegation>>true</my:AllowDelegation>
          <my:AllowChangeRequests>>true</my:AllowChangeRequests>
          <my:StopOnAnyReject xsi:nil="true">
          </my:StopOnAnyReject>
          <my:WantedTasks xsi:nil="true">
          </my:WantedTasks>
          <my:SetMetadataOnSuccess>>false</my:SetMetadataOnSuccess>
          <my:MetadataSuccessField>
          </my:MetadataSuccessField>
          <my:MetadataSuccessValue>
          </my:MetadataSuccessValue>
          <my:ApproveWhenComplete>>false</my:ApproveWhenComplete>
          <my:TimePerTaskVal xsi:nil="true">
          </my:TimePerTaskVal>
          <my:TimePerTaskType xsi:nil="true">
          </my:TimePerTaskType>
          <my:Voting>>false</my:Voting>
          <my:MetadataTriggerField>
          </my:MetadataTriggerField>
          <my:MetadataTriggerValue>
          </my:MetadataTriggerValue>
          <my:InitLock>>false</my:InitLock>
          <my:MetadataStop>>false</my:MetadataStop>
          <my:ItemChangeStop>>false</my:ItemChangeStop>
          <my:GroupTasks>>false</my:GroupTasks>
        </my:myFields>
      </workflowParameters>
    </StartWorkflow>
  </soap:Body>
</soap:Envelope>
```

The protocol server finds the appropriate set of data for the document and returns the following SOAP message:

```

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<soap:Body>
<StartWorkflowResponse xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
<StartWorkflowResult>
</StartWorkflowResult>
</StartWorkflowResponse>
</soap:Body>
</soap:Envelope>

```

4.2 Update a Workflow Task

By retrieving information about all available data on a specific document, which includes workflows, workflow associations, and workflow tasks, a protocol client can retrieve and modify a workflow task. The following diagram shows how this is done.

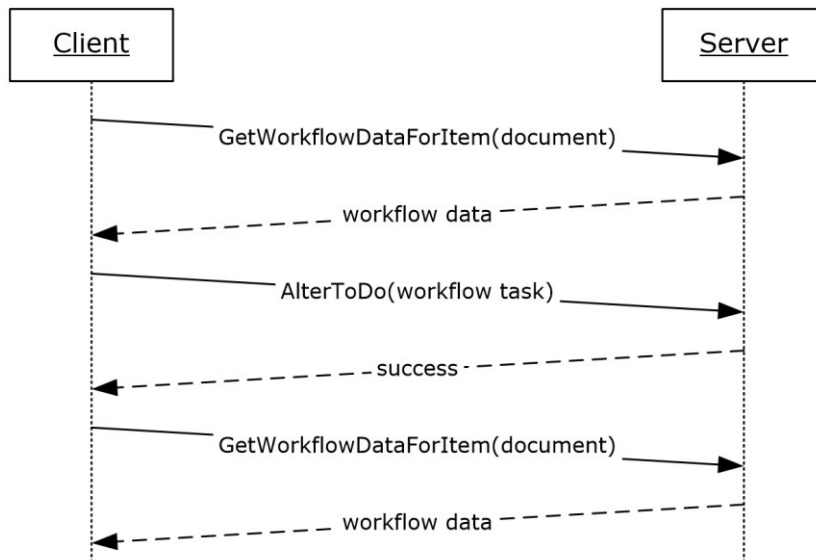


Figure 3: Querying all workflow data, altering a workflow task

4.2.1 Retrieve All Workflow Data on a Document

To retrieve the aggregated set of workflow associations, workflows, workflow tasks, and other related information for a document, the protocol client sends the following SOAP message:

```

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
<soap:Body>
<GetWorkflowDataForItem xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
<item>http://server/Documents/Document.docx</item>
</GetWorkflowDataForItem>
</soap:Body>
</soap:Envelope>

```

The protocol server finds the appropriate set of data for the document and responds with the following SOAP message:

```

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <GetWorkflowDataForItemResponse
xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
      <GetWorkflowDataForItemResult>
        <WorkflowData>
          <ToDoData>
            <xml xmlns:s="uuid:BDC6E3F0-6DA3-11d1-A2A3-00AA00C14882"
xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882" xmlns:rs="urn:schemas-microsoft-
com:rowset" xmlns:z="#RowsetSchema">
              <rs:data ItemCount="2">
                <z:row
ows_ContentTypeId="0x01080100C9C9515DE4E24001905074F980F93160003CB2AB313AE62048BEE174C9F41ECC
7C" ows Title="Please approve Document" ows Priority="(2) Normal" ows Status="Not Started"
ows AssignedTo="1;#User" ows Body="Please approve Document" ows StartDate="2008-02-06
10:18:13" ows WorkflowLink="http://server/Documents/Document.docx, Document"
ows_WorkflowName="Approval" ows_TaskType="1" ows_FormURN="urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Review:$Subst:LCID;" ows_HasCustomEmailBody="0"
ows_SendEmailNotification="1" ows_Completed="0" ows_WorkflowListId="{5F2F1E89-06D7-44F5-886B-
3EE11FF2D5B3}" ows_WorkflowItemId="6" ows-AllowChangeRequests="True"
ows-AllowDelegation="True" ows_BodyText="Please approve Document" ows_ContentType="Office
SharePoint Server Workflow Task" ows_ID="13" ows_WorkflowFormURL="" ows_FormData=""
ows_Modified="2008-02-06 10:18:13" ows_Created="2008-02-06 10:18:13" ows_Author="1;#User"
ows_Editor="1073741823;#System Account" ows_owshiddenversion="1" ows_WorkflowVersion="1"
ows_UIVersion="512" ows_UIVersionString="1.0" ows_Attachments="0" ows_ModerationStatus="0"
ows_LinkTitleNoMenu="Please approve Document" ows_LinkTitle="Please approve Document"
ows_SelectTitle="13" ows_Order="1300.000000000000" ows_GUID="{C72C44AB-3DD7-4947-8E60-
BAF09E56E9BF}" ows_WorkflowInstanceId="{3EFDE9D9-C8DE-463B-8FE6-F13E15419C79}"
ows_FileRef="13;#Lists/Tasks/13_000" ows_FileDirRef="13;#Lists/Tasks"
ows_Last_x0020_Modified="13;#2008-02-06 10:18:13" ows_Created_x0020_Date="13;#2008-02-06
10:18:13" ows_FSObjType="13;#0" ows_PermMask="0x7fffffff"
ows_FileLeafRef="13;#13_000" ows_UniqueId="13;#{0B46AE7B-EB5E-4C2A-9B0A-3FE29BE2078C}"
ows_ProgId="13;#" ows_ScopeId="13;#{349A0AFD-F2F8-4564-A1D4-CCFF4880C19C}"
ows_EditMenuTableStart="13_000" ows_EditMenuTableEnd="13" ows_LinkFilenameNoMenu="13_000"
ows_LinkFilename="13_000" ows_ServerUrl="/Lists/Tasks/13_000"
ows_EncodedAbsUrl="http://server/Lists/Tasks/13_000" ows_BaseName="13_" ows_Level="1"
ows_IsCurrentVersion="1"
ows_MetaInfo_vti_versionhistory="4c620c8dbfe64857a29e5b628ebb9ddb:1"
ows_MetaInfo_WorkflowCreationPath="94218b95-47d3-4fa3-8e3f-f44f6d234acd;"
ows_TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb"
ows_EditFormURL="http://server/_layouts/WrkTaskIP.aspx?ID=13&List=4c620c8d-bfe6-4857-
a29e-5b628ebb9ddb" />
                <z:row
ows_ContentTypeId="0x01080100C9C9515DE4E24001905074F980F93160003CB2AB313AE62048BEE174C9F41ECC
7C" ows Title="Please approve Document" ows Priority="(2) Normal" ows Status="Not Started"
ows AssignedTo="1;#User" ows Body="asdf" ows StartDate="2008-02-13 13:28:52"
ows_WorkflowLink="http://server/Documents/Document.docx, Document" ows_WorkflowName="app"
ows_TaskType="1" ows_FormURN="urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Review:$Subst:LCID;" ows_HasCustomEmailBody="0"
ows_SendEmailNotification="1" ows_Completed="0" ows_WorkflowListId="{5F2F1E89-06D7-44F5-886B-
3EE11FF2D5B3}" ows_WorkflowItemId="6" ows-AllowChangeRequests="True"
ows-AllowDelegation="True" ows_BodyText="asdf" ows_ContentType="Office SharePoint Server
Workflow Task" ows_ID="21" ows_Modified="2008-02-13 13:28:52" ows_Created="2008-02-13
13:28:52" ows_Author="1;#User" ows_Editor="1073741823;#System Account"
ows_owshiddenversion="1" ows_WorkflowVersion="1" ows_UIVersion="512"
ows_UIVersionString="1.0" ows_Attachments="0" ows_ModerationStatus="0"
ows_LinkTitleNoMenu="Please approve Document" ows_LinkTitle="Please approve Document"
ows_SelectTitle="21" ows_Order="2100.000000000000" ows_GUID="{F390F9F9-4942-482C-A238-
3002A332BF4D}" ows_WorkflowInstanceId="{874E77FB-144F-4E4E-9500-25C9D1FC53E4}"
ows_FileRef="21;#Lists/Tasks/21_000" ows_FileDirRef="21;#Lists/Tasks"
ows_Last_x0020_Modified="21;#2008-02-13 13:28:53" ows_Created_x0020_Date="21;#2008-02-13
13:28:53" ows_FSObjType="21;#0" ows_PermMask="0x7fffffff"
ows_FileLeafRef="21;#21_000" ows_UniqueId="21;#{21C0167B-0810-456B-BC87-2490301830C1}"
ows_ProgId="21;#" ows_ScopeId="21;#{349A0AFD-F2F8-4564-A1D4-CCFF4880C19C}"
ows_EditMenuTableStart="21_000" ows_EditMenuTableEnd="21" ows_LinkFilenameNoMenu="21_000"
ows_LinkFilename="21_000" ows_ServerUrl="/Lists/Tasks/21_000"

```



```

ows_EncodedAbsUrl="http://server/Lists/Tasks/21_.000" ows_BaseName="21_" ows__Level="1"
ows_IsCurrentVersion="1"
ows_MetaInfo vti_versionhistory="4c620c8dbfe64857a29e5b628ebb9ddb:1"
ows_MetaInfo WorkflowCreationPath="ab6d93ed-0fc1-49ca-8259-b02533f51859;"
ows_TaskListID="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb"
ows_EditFormURL="http://server/_layouts/WrkTaskIP.aspx?ID=21&List=4c620c8d-bfe6-4857-
a29e-5b628ebb9ddb" />
</rs:data>
</xml>
</ToDoData>
<TemplateData>
  <Web Title="Home" Url="http://server" />
  <List Title="Documents" Url="http://server/Documents" />
  <WorkflowTemplates>
    <WorkflowTemplate Name="app" Description="Routes a document for approval.
    Approvers can approve or reject the document, reassign the approval task, or request changes
    to the document." InstantiationUrl="http://server/_layouts/IniWrkflIP.aspx?List=5f2f1e89-
    06d7-44f5-886b-3ee11ff2d5b3&ID=6&TemplateID={ab6d93ed-0fc1-49ca-8259-b02533f51859}">
      <WorkflowTemplateIdSet TemplateId="ab6d93ed-0fc1-49ca-8259-b02533f51859"
      BaseId="c6964bfff-bf8d-41ac-ad5e-b61ec11731c" />
      <AssociationData>
        <string>&lt;my:myFields xml:lang="en-us"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"&gt;
&lt;my:Reviewers&gt;&lt;/my:Reviewers&gt; &lt;my:CC&gt;&lt;/my:CC&gt; &lt;my:DueDate
xsi:nil="true"&gt;&lt;/my:DueDate&gt; &lt;my:Description&gt;&lt;/my:Description&gt;
&lt;my:Title&gt;&lt;/my:Title&gt; &lt;my:DefaultTaskType&gt;1&lt;/my:DefaultTaskType&gt;
&lt;my:CreateTasksInSerial&gt;true&lt;/my:CreateTasksInSerial&gt;
&lt;my:AllowDelegation&gt;true&lt;/my:AllowDelegation&gt;
&lt;my:AllowChangeRequests&gt;true&lt;/my:AllowChangeRequests&gt; &lt;my:StopOnAnyReject
xsi:nil="true"&gt;&lt;/my:StopOnAnyReject&gt; &lt;my:WantedTasks
xsi:nil="true"&gt;&lt;/my:WantedTasks&gt;
&lt;my:SetMetadataOnSuccess&gt;false&lt;/my:SetMetadataOnSuccess&gt;
&lt;my:MetadataSuccessField&gt;&lt;/my:MetadataSuccessField&gt;
&lt;my:MetadataSuccessValue&gt;&lt;/my:MetadataSuccessValue&gt;
&lt;my:ApproveWhenComplete&gt;false&lt;/my:ApproveWhenComplete&gt; &lt;my:TimePerTaskVal
xsi:nil="true"&gt;&lt;/my:TimePerTaskVal&gt; &lt;my:TimePerTaskType
xsi:nil="true"&gt;&lt;/my:TimePerTaskType&gt; &lt;my:Voting&gt;false&lt;/my:Voting&gt;
&lt;my:MetadataTriggerField&gt;&lt;/my:MetadataTriggerField&gt;
&lt;my:MetadataTriggerValue&gt;&lt;/my:MetadataTriggerValue&gt;
&lt;my:InitLock&gt;false&lt;/my:InitLock&gt;
&lt;my:MetadataStop&gt;false&lt;/my:MetadataStop&gt;
&lt;my:ItemChangeStop&gt;false&lt;/my:ItemChangeStop&gt;
&lt;my:GroupTasks&gt;false&lt;/my:GroupTasks&gt;&lt;/my:myFields&gt;</string>
      </AssociationData>
      <Metadata>
        <Instantiation_FormURN>
          <string>urn:schemas-microsoft-
com:office:infopath:workflow:ReviewRouting-Init:$Subst:LCID;</string>
        </Instantiation_FormURN>
      </Metadata>
    </WorkflowTemplate>
    <WorkflowTemplate Name="Collect Feedback" Description="Routes a document for
    review. Reviewers can provide feedback, which is compiled and sent to the document owner when
    the workflow has completed."
    InstantiationUrl="http://server/_layouts/IniWrkflIP.aspx?List=5f2f1e89-06d7-44f5-886b-
    3ee11ff2d5b3&ID=6&TemplateID={b03dbala-b247-451f-9ea2-117d7e366cdb}">
      <WorkflowTemplateIdSet TemplateId="b03dbala-b247-451f-9ea2-117d7e366cdb"
      BaseId="46c389a4-6e18-476c-aa17-289b0c79fb8f" />
      <AssociationData>
        <string>&lt;my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD" xml:lang="en-
us"&gt;&lt;my:Reviewers&gt;&lt;/my:Reviewers&gt;&lt;my:CC&gt;&lt;/my:CC&gt;&lt;my:DueDate
xsi:nil="true"&gt;&lt;/my:DueDate&gt;&lt;my:Description&gt;&lt;/my:Description&gt;&lt;my:Titl
e&gt;&lt;/my:Title&gt;&lt;my:DefaultTaskType&gt;0&lt;/my:DefaultTaskType&gt;&lt;my:CreateTask
sInSerial&gt;false&lt;/my:CreateTasksInSerial&gt;&lt;my:AllowDelegation&gt;true&lt;/my:AllowD
elegation&gt;&lt;my:AllowChangeRequests&gt;true&lt;/my:AllowChangeRequests&gt;&lt;my:StopOnAn
yReject xsi:nil="true"&gt;&lt;/my:StopOnAnyReject&gt;&lt;my:WantedTasks
xsi:nil="true"&gt;&lt;/my:WantedTasks&gt;&lt;my:SetMetadataOnSuccess&gt;false&lt;/my:SetMetad
ataOnSuccess&gt;&lt;my:MetadataSuccessField&gt;&lt;/my:MetadataSuccessField&gt;&lt;my:Metadat

```

```

aSuccessValue&gt;&lt;/my:MetadataSuccessValue&gt;&lt;my:ApproveWhenComplete&gt;false&lt;/my:ApproveWhenComplete&gt;&lt;my:TimePerTaskVal
xsi:nil="true"&gt;&lt;/my:TimePerTaskVal&gt;&lt;my:TimePerTaskType
xsi:nil="true"&gt;&lt;/my:TimePerTaskType&gt;&lt;my:Voting&gt;false&lt;/my:Voting&gt;&lt;my:MetadataTriggerField&gt;&lt;/my:MetadataTriggerField&gt;&lt;my:MetadataTriggerValue&gt;&lt;/my:MetadataTriggerValue&gt;&lt;my:MetadataInitLock&gt;false&lt;/my:MetadataInitLock&gt;&lt;my:MetadataStop&gt;false&lt;/my:MetadataStop&gt;&lt;my:ItemChangeStop&gt;false&lt;/my:ItemChangeStop&gt;&lt;my:GroupTasks&gt;false&lt;/my:GroupTasks&gt;&lt;/my:myFields&gt;</string>
</AssociationData>
<Metadata>
  <Instantiation_FormURN>
    <string>urn:schemas-microsoft-com:office:infopath:workflow:ReviewRouting-
Init:$Subst:LCID;</string>
  </Instantiation_FormURN>
</Metadata>
</WorkflowTemplate>
<WorkflowTemplate Name="Collect Signatures" Description="Gathers signatures needed
to complete a Microsoft Office document. This workflow can be started only from within an
Office client.">
  <WorkflowTemplateIdSet TemplateId="5b8d2cf1-3ef0-46ee-ae87-61c595a34fb7"
BaseId="2f213931-3b93-4f81-b021-3022434a3114" />
  <Metadata>
    <InitiationCategories>
      <string>SigClientRequired</string>
    </InitiationCategories>
    <Instantiation_FormURN>
      <string>urn:schemas-microsoft-
com:office:infopath:workflow:CollectSignatures-Init:$Subst:LCID;</string>
    </Instantiation_FormURN>
  </Metadata>
</WorkflowTemplate>
<WorkflowTemplate Name="Approval" Description="Routes a document for approval.
Approvers can approve or reject the document, reassign the approval task, or request changes
to the document." InstantiationUrl="http://server/_layouts/IniWrkflIP.aspx?List=5f2f1e89-
06d7-44f5-886b-3ee11ff2d5b3&amp;ID=6&amp;TemplateID={94218b95-47d3-4fa3-8e3f-f44f6d234acd}">
  <WorkflowTemplateIdSet TemplateId="94218b95-47d3-4fa3-8e3f-f44f6d234acd"
BaseId="c6964bfff-bf8d-41ac-ad5e-b61ec111731c" />
  <AssociationData>
    <string>&lt;my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD" xml:lang="en-
us"&gt;&lt;my:Reviewers&gt;&lt;/my:Reviewers&gt;&lt;my:CC&gt;&lt;/my:CC&gt;&lt;my:DueDate
xsi:nil="true"&gt;&lt;/my:DueDate&gt;&lt;my:Description&gt;&lt;/my:Description&gt;&lt;my:Titl
e&gt;&lt;/my:Title&gt;&lt;my:DefaultTaskType&gt;1&lt;/my:DefaultTaskType&gt;&lt;my:CreateTask
sInSerial&gt;true&lt;/my:CreateTasksInSerial&gt;&lt;my:AllowDelegation&gt;true&lt;/my:AllowDe
legation&gt;&lt;my:AllowChangeRequests&gt;true&lt;/my:AllowChangeRequests&gt;&lt;my:StopOnAny
Reject xsi:nil="true"&gt;&lt;/my:StopOnAnyReject&gt;&lt;my:WantedTasks
xsi:nil="true"&gt;&lt;/my:WantedTasks&gt;&lt;my:SetMetadataOnSuccess&gt;false&lt;/my:SetMetad
ataOnSuccess&gt;&lt;my:MetadataSuccessField&gt;&lt;/my:MetadataSuccessField&gt;&lt;my:Metadat
aSuccessValue&gt;&lt;/my:MetadataSuccessValue&gt;&lt;my:ApproveWhenComplete&gt;false&lt;/my:A
pproveWhenComplete&gt;&lt;my:TimePerTaskVal
xsi:nil="true"&gt;&lt;/my:TimePerTaskVal&gt;&lt;my:TimePerTaskType
xsi:nil="true"&gt;&lt;/my:TimePerTaskType&gt;&lt;my:Voting&gt;false&lt;/my:Voting&gt;&lt;my:M
etadataTriggerField&gt;&lt;/my:MetadataTriggerField&gt;&lt;my:MetadataTriggerValue&gt;&lt;/my:
MetadataTriggerValue&gt;&lt;my:InitLock&gt;false&lt;/my:InitLock&gt;&lt;my:MetadataStop&gt;f
alse&lt;/my:MetadataStop&gt;&lt;my:ItemChangeStop&gt;false&lt;/my:ItemChangeStop&gt;&lt;my:Gr
oupTasks&gt;false&lt;/my:GroupTasks&gt;&lt;/my:myFields&gt;</string>
  </AssociationData>
  <Metadata>
    <Instantiation_FormURN>
      <string>urn:schemas-microsoft-com:office:infopath:workflow:ReviewRouting-
Init:$Subst:LCID;</string>
    </Instantiation_FormURN>
  </Metadata>
</WorkflowTemplate>
</WorkflowTemplates>
</TemplateData>
<ActiveWorkflowsData>
  <Workflows>
    <Workflow
StatusPageUrl="http://server/_layouts/WrkStat.aspx?List=%7B5F2F1E89%2D06D7%2D44F5%2D886B%2D3E

```

```
E11FF2D5B3%7D&WorkflowInstanceID=%7B874e77fb%2D144f%2D4e4e%2D9500%2D25c9d1fc53e4%7D"
Id="874e77fb-144f-4e4e-9500-25c9d1fc53e4" TemplateId="ab6d93ed-0fc1-49ca-8259-b02533f51859"
ListId="5f2f1e89-06d7-44f5-886b-3ee11ff2d5b3" SiteId="4ca76181-d8d6-4535-86c7-2eb7fcf91c0e"
WebId="598b4ef0-3ec0-4282-aac9-ed6d114f2b7f" ItemId="6" ItemGUID="7522c63c-a7b4-4bff-bf34-
3c274b2d8ea7" TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb" AdminTaskListId="" Author="1"
Modified="20080213 21:28:53" Created="20080213 21:28:52" StatusVersion="0" Status1="2"
Status2="" Status3="" Status4="" Status5="" Status6="" Status7="" Status8="" Status9=""
Status10="" TextStatus1="" TextStatus2="" TextStatus3="" TextStatus4="" TextStatus5=""
Modifications=""&lt;Mods&gt;&lt;Mod&gt;&lt;SubId&gt;&lt;Id&gt;&lt;Data&gt;&lt;my:DueDate&gt;&lt;my:DueDate&gt;&lt;my:Description&gt;&lt;my:Description&gt;&lt;Data&gt;&lt;Mod&gt;&lt;Mod&gt;&lt;SubId&gt;&lt;Id&gt;&lt;Data&gt;&lt;my:NewReviewers&gt;&lt;my:NewReviewers&gt;&lt;my:DueDate&gt;&lt;my:DueDate&gt;&lt;my:Description&gt;&lt;my:Duration
xsi:nil=&quot;true&quot;&lt;my:Duration&gt;&lt;my:DurType&gt;
0&lt;my:DurType&gt;&lt;my:GroupTasks&gt;false&lt;my:GroupTasks&gt;
&lt;my:ShowDuration&gt;1&lt;my:ShowDuration&gt;&lt;Data&gt;&lt;Mod&gt;&lt;
/Mods&gt;" ActivityDetails="System.Byte[]" InstanceData="" InstanceDataSize="0"
InternalState="2" ProcessingId="" />
<Workflow
StatusPageUrl="http://server/_layouts/WrkStat.aspx?List=%7B5F2F1E89%2D06D7%2D44F5%2D886B%2D3E
E11FF2D5B3%7D&WorkflowInstanceID=%7B3efde9d9%2Dc8de%2D463b%2D8fe6%2Df13e15419c79%7D"
Id="3efde9d9-c8de-463b-8fe6-f13e15419c79" TemplateId="94218b95-47d3-4fa3-8e3f-f44f6d234acd"
ListId="5f2f1e89-06d7-44f5-886b-3ee11ff2d5b3" SiteId="4ca76181-d8d6-4535-86c7-2eb7fcf91c0e"
WebId="598b4ef0-3ec0-4282-aac9-ed6d114f2b7f" ItemId="6" ItemGUID="7522c63c-a7b4-4bff-bf34-
3c274b2d8ea7" TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb" AdminTaskListId="" Author="1"
Modified="20080206 18:18:13" Created="20080206 18:18:12" StatusVersion="0" Status1="2"
Status2="" Status3="" Status4="" Status5="" Status6="" Status7="" Status8="" Status9=""
Status10="" TextStatus1="" TextStatus2="" TextStatus3="" TextStatus4="" TextStatus5=""
Modifications=""&lt;Mods&gt;&lt;Mod&gt;&lt;SubId&gt;&lt;Data&gt;&lt;my:DueDate&gt;&lt;my:DueDate&gt;&lt;my:Description&gt;&lt;my:Duration
Document&lt;my:Description&gt;&lt;Data&gt;&lt;Mod&gt;&lt;Mod&gt;&lt;SubId&gt;&lt;Id&gt;&lt;Data&gt;&lt;Mod&gt;&lt;Mod&gt;&lt;SubId&gt;&lt;Id&gt;&lt;Data&gt;&lt;my:NewReviewers&gt;&lt;my:NewReviewers&gt;&lt;my:DueDate&gt;&lt;my:DueDate&gt;&lt;my:Description&gt;&lt;my:Duration
xsi:nil=&quot;true&quot;&lt;my:Duration&gt;&lt;my:DurType&gt;
0&lt;my:DurType&gt;&lt;my:GroupTasks&gt;false&lt;my:GroupTasks&gt;
&lt;my:ShowDuration&gt;1&lt;my:ShowDuration&gt;&lt;Data&gt;&lt;Mod&gt;&lt;
/Mods&gt;" ActivityDetails="System.Byte[]" InstanceData="" InstanceDataSize="0"
InternalState="2" ProcessingId="" />
<Workflow
StatusPageUrl="http://server/_layouts/WrkStat.aspx?List=%7B5F2F1E89%2D06D7%2D44F5%2D886B%2D3E
E11FF2D5B3%7D&WorkflowInstanceID=%7Bcc2ec83f%2Dab79%2D4e18%2D85eb%2Df90c72427b21%7D"
Id="cc2ec83f-ab79-4e18-85eb-f90c72427b21" TemplateId="b03dbala-b247-451f-9ea2-117d7e366cdb"
ListId="5f2f1e89-06d7-44f5-886b-3ee11ff2d5b3" SiteId="4ca76181-d8d6-4535-86c7-2eb7fcf91c0e"
WebId="598b4ef0-3ec0-4282-aac9-ed6d114f2b7f" ItemId="6" ItemGUID="7522c63c-a7b4-4bff-bf34-
3c274b2d8ea7" TaskListId="4c620c8d-bfe6-4857-a29e-5b628ebb9ddb" AdminTaskListId="" Author="1"
Modified="20080213 22:08:29" Created="20080213 21:58:33" StatusVersion="1" Status1="15"
Status2="" Status3="" Status4="" Status5="" Status6="" Status7="" Status8="" Status9=""
Status10="" TextStatus1="" TextStatus2="" TextStatus3="" TextStatus4="" TextStatus5=""
Modifications="" ActivityDetails="System.Byte[]" InstanceData="" InstanceDataSize="0"
InternalState="4" ProcessingId="" />
</Workflows>
</ActiveWorkflowsData>
</DefaultWorkflows>
</DefaultWorkflows>
</WorkflowData>
</GetWorkflowDataForItemResult>
</GetWorkflowDataForItemResponse>
</soap:Body>
```

```
</soap:Envelope>
```

4.2.2 Alter a Workflow Task

To modify a workflow task for a document, the protocol client sends the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
<soap:Body>
  <AlterToDo
    xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
    <item>http://server/Documents/Document.xml</item>
    <todoId>23</todoId>
    <todoListId>4c620c8d-bfe6-4857-a29e-5b628ebb9ddb</todoListId>
    <taskData>
      <my:myFields xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xmlns:xhtml="http://www.w3.org/1999/xhtml"
        xmlns:aml="http://schemas.microsoft.com/aml/2001/core"
        xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882"
        xmlns:o="urn:schemas-microsoft-com:office:office"
        xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core"
        xmlns:w10="urn:schemas-microsoft-com:office:word"
        xmlns:v="urn:schemas-microsoft-com:vml"
        xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
        xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
        xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
        xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
        xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/
          dataFormSolution"
        xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
        xmlns:s1="http://microsoft.com/wsdl/types/"
        xmlns:z="#RowsetSchema"
        xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
        xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
        xml:lang="en-us">
        <my:TaskStatus>#</my:TaskStatus>
        <my:Comments>Comment1</my:Comments>
        <my:DelegateTo>User</my:DelegateTo>
        <my:NewDescription>Please review Form</my:NewDescription>
        <my:NewDueDate xsi:nil="true">
      </my:NewDueDate>
      <my:RequestTo>
    </my:RequestTo>
    <my:Decline>0</my:Decline>
    <my:dcr>0</my:dcr>
    <my:Status>Completed</my:Status>
  </my:myFields>
</taskData>
</AlterToDo>
</soap:Body>
</soap:Envelope>
```

The protocol server modifies the specified workflow task and responds with the following SOAP message:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<soap:Body>
  <AlterToDoResponse
    xmlns="http://schemas.microsoft.com/sharepoint/soap/workflow/">
    <AlterToDoResult>
      <fSuccess>1</fSuccess>
```

```

        </AlterToDoResult>
    </AlterToDoResponse>
</soap:Body>
</soap:Envelope>

```

4.3 Related Files

4.3.1 TodoData.Xml

Implementations of this protocol return workflow tasks that have a field named **WorkflowInstanceId** matching the **Id** of a workflow started on the queried document.

If the queried document is part of a workflow with **WorkflowTemplateIdSet.TemplateId** set to the GUID {B4154DF4-CC53-4C4F-ADEF-1ECF0B7417F6}, this workflow is a Translation Workflow then the protocol server also returns workflow tasks belonging to the parent of this document that satisfy the following conditions:

- The workflow task has a **WorkflowInstanceId** that identifies a workflow based on a Translation Workflow template.
- The workflow task has a field named **ows_PlaceholderDocListItemID** matching the queried document list item identifier.

The parent of the document is determined by checking the **TranslationBaseDocument** field, which contains a **list item identifier** specifying a document in the queried document list. If this field identifies a valid document, there is a parent document.

4.3.2 TemplateData.WorkflowTemplates.WorkflowTemplate.AssociationData

As defined by this protocol, this element can contain any XML or be empty. Proof-of-concept implementations of workflow templates use the following XML format for this node.

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema
  targetNamespace="http://schemas.microsoft.com/office/
    infopath/2003/myXSD" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
      instance"
  xmlns:xhtml="http://www.w3.org/1999/xhtml"
  xmlns:aml="http://schemas.microsoft.com/aml/2001/core"
  xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882"
  xmlns:o="urn:schemas-microsoft-com:office:office"
  xmlns:o12="http://schemas.microsoft.com/office/2004/7/core"
  xmlns:w10="urn:schemas-microsoft-com:office:word"
  xmlns:v="urn:schemas-microsoft-com:vml"
  xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
  xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
  xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
  xmlns:s1="http://schemas.microsoft.com/schemaLibrary/2003/core"
  xmlns:dfs="http://schemas.microsoft.com/office/
    infopath/2003/dataFormSolution"
  xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
  xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
  xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
  xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<xsd:element name="myFields">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:fieldALS" minOccurs="0"/>
      <xsd:element ref="my:InitiatedBy" minOccurs="0"/>
      <xsd:element ref="my:Reviewers" minOccurs="0"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

```

        <xsd:element ref="my:DefaultTaskType" minOccurs="0"/>
        <xsd:element ref="my:MySignatureURL" minOccurs="0"/>
        <xsd:element ref="my:LastSignatureID" minOccurs="0"/>
        <xsd:element ref="my:CurrentSignatureID" minOccurs="0"/>
        <xsd:element ref="my:AllowArbitraryApproval" minOccurs="0"/>
        <xsd:element ref="my:RejectedImageURL" minOccurs="0"/>
        <xsd:element ref="my:CanSubmit" minOccurs="0"/>
        <xsd:element ref="my:EawfAttachments" minOccurs="0"/>
        <xsd:element ref="my:group1" minOccurs="0"/>
        <xsd:element ref="my:group2" minOccurs="0"/>
        <xsd:element ref="my:group3" minOccurs="0"/>
    </xsd:sequence>
    <xsd:anyAttribute processContents="lax"
        namespace="http://www.w3.org/XML/1998/namespace"/>
</xsd:complexType>
</xsd:element>
<xsd:element name="fieldALS" type="xsd:string"/>
<xsd:element name="InitiatedBy" type="xsd:string"/>
<xsd:element name="Reviewers">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="Person">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:ID" minOccurs="0"/>
            <xsd:element ref="my:Type" minOccurs="0"/>
            <xsd:element ref="my:DisplayName" minOccurs="0"/>
            <xsd:element ref="my:EmailAddress" minOccurs="0"/>
            <xsd:element ref="my:Order" minOccurs="0"/>
            <xsd:element ref="my:Comment" minOccurs="0"/>
            <xsd:element ref="my:ApprovalType" minOccurs="0"/>
            <xsd:element ref="my:SignatureID" minOccurs="0"/>
            <xsd:element ref="my:Department" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="ID" type="xsd:string"/>
<xsd:element name="Type" type="xsd:string"/>
<xsd:element name="DisplayName" type="xsd:string"/>
<xsd:element name="EmailAddress" type="xsd:string"/>
<xsd:element name="Order" type="xsd:string"/>
<xsd:element name="Comment" type="xsd:string"/>
<xsd:element name="ApprovalType" type="xsd:string"/>
<xsd:element name="SignatureID" type="xsd:string"/>
<xsd:element name="Department" type="xsd:string"/>
<xsd:element name="DefaultTaskType" nillable="true" type="xsd:integer"/>
<xsd:element name="MySignatureURL" type="xsd:string"/>
<xsd:element name="LastSignatureID" type="xsd:string"/>
<xsd:element name="CurrentSignatureID" type="xsd:string"/>
<xsd:element name="AllowArbitraryApproval" nillable="true"
    type="xsd:boolean"/>
<xsd:element name="RejectedImageURL" type="xsd:string"/>
<xsd:element name="CanSubmit" nillable="true" type="xsd:boolean"/>
<xsd:element name="EawfAttachments">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:EawfAttachment" minOccurs="0"
                maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="EawfAttachment">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:AttachedFile" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>

```

```

        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="AttachedFile" nillable="true" type="xsd:base64Binary"/>
<xsd:element name="group1">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="group2">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="group3">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema
    targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xhtml="http://www.w3.org/1999/xhtml"
    xmlns:aml="http://schemas.microsoft.com/aml/2001/core"
    xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882"
    xmlns:o="urn:schemas-microsoft-com:office:office"
    xmlns:o12="http://schemas.microsoft.com/office/2004/7/core"
    xmlns:w10="urn:schemas-microsoft-com:office:word" xmlns:v="urn:schemas-
        microsoft-com:vml"
    xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
    xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
    xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
    xmlns:s1="http://schemas.microsoft.com/schemaLibrary/2003/core"
    xmlns:dfs="http://schemas.microsoft.com/office/
        infopath/2003/dataFormSolution"
    xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
    xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
    xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
    xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:Reviewers" minOccurs="0"/>
                <xsd:element ref="my:CC" minOccurs="0"/>
                <xsd:element ref="my:DueDate" minOccurs="0"/>
                <xsd:element ref="my:Description" minOccurs="0"/>
                <xsd:element ref="my:Title" minOccurs="0"/>
                <xsd:element ref="my:DefaultTaskType" minOccurs="0"/>
                <xsd:element ref="my:CreateTasksInSerial" minOccurs="0"/>
                <xsd:element ref="my:AllowDelegation" minOccurs="0"/>
                <xsd:element ref="my:AllowChangeRequests" minOccurs="0"/>
                <xsd:element ref="my:StopOnAnyReject" minOccurs="0"/>
                <xsd:element ref="my:WantedTasks" minOccurs="0"/>
                <xsd:element ref="my:SetMetadataOnSuccess" minOccurs="0"/>
                <xsd:element ref="my:MetadataSuccessField" minOccurs="0"/>
                <xsd:element ref="my:MetadataSuccessValue" minOccurs="0"/>
                <xsd:element ref="my:ApproveWhenComplete" minOccurs="0"/>
                <xsd:element ref="my:TimePerTaskVal" minOccurs="0"/>
                <xsd:element ref="my:TimePerTaskType" minOccurs="0"/>
                <xsd:element ref="my:Voting" minOccurs="0"/>
                <xsd:element ref="my:MetadataTriggerField" minOccurs="0"/>
                <xsd:element ref="my:MetadataTriggerValue" minOccurs="0"/>
                <xsd:element ref="my:InitLock" minOccurs="0"/>
                <xsd:element ref="my:MetadataStop" minOccurs="0"/>
                <xsd:element ref="my:ItemChangeStop" minOccurs="0"/>
                <xsd:element ref="my:GroupTasks" minOccurs="0"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>

```

```

        </xsd:sequence>
        <xsd:anyAttribute processContents="lax"
            namespace="http://www.w3.org/XML/1998/namespace"/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="Reviewers">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0"
                maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="Person">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:DisplayName" minOccurs="0"/>
            <xsd:element ref="my:AccountId" minOccurs="0"/>
            <xsd:element ref="my:AccountType" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="DisplayName" type="xsd:string"/>
<xsd:element name="AccountId" type="xsd:string"/>
<xsd:element name="AccountType" type="xsd:string"/>
<xsd:element name="CC">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0"
                maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="DueDate" nillable="true" type="xsd:date"/>
<xsd:element name="Description" type="xsd:string"/>
<xsd:element name="Title" type="xsd:string"/>
<xsd:element name="DefaultTaskType" nillable="true" type="xsd:integer"/>
<xsd:element name="CreateTasksInSerial" nillable="true"
    type="xsd:boolean"/>
<xsd:element name="AllowDelegation" nillable="true" type="xsd:boolean"/>
<xsd:element name="AllowChangeRequests" nillable="true"
    type="xsd:boolean"/>
<xsd:element name="StopOnAnyReject" nillable="true" type="xsd:boolean"/>
<xsd:element name="WantedTasks" nillable="true" type="xsd:integer"/>
<xsd:element name="SetMetadataOnSuccess" nillable="true"
    type="xsd:boolean"/>
<xsd:element name="MetadataSuccessField" type="xsd:string"/>
<xsd:element name="MetadataSuccessValue" type="xsd:string"/>
<xsd:element name="ApproveWhenComplete" nillable="true"
    type="xsd:boolean"/>
<xsd:element name="TimePerTaskVal" nillable="true" type="xsd:integer"/>
<xsd:element name="TimePerTaskType" nillable="true" type="xsd:integer"/>
<xsd:element name="Voting" nillable="true" type="xsd:boolean"/>
<xsd:element name="MetadataTriggerField" type="xsd:string"/>
<xsd:element name="MetadataTriggerValue" type="xsd:string"/>
<xsd:element name="InitLock" nillable="true" type="xsd:boolean"/>
<xsd:element name="MetadataStop" nillable="true" type="xsd:boolean"/>
<xsd:element name="ItemChangeStop" nillable="true" type="xsd:boolean"/>
<xsd:element name="GroupTasks" nillable="true" type="xsd:boolean"/>
</xsd:schema>

```

4.3.3 TemplateData.WorkflowTemplates.WorkflowTemplate.Metadata

As defined by this protocol, this element, if supplied, can contain elements that are vendor-extensible. These vendor-extensible elements are **InitiationCategories**, **Instantiation_FormURN**, **Instantiation_FormURI**, **SigClientSettings**, and **AssignmentStagesName**. Proof-of-concept

implementations of workflow templates use the following strings for these nodes in the **TemplateData.WorkflowTemplates.WorkflowTemplate.Metadata** node.

```
<Metadata>

  <Instantiation_FormURN>
    <string>http://server/ catalogs/wfpub/Collect Feedback - SharePoint
14/reviewfeedback_1033.xsn</string>
  </Instantiation_FormURN>
  <InitiationCategories>
    <string>List;Language:1033;#ContentType;Language:1033</string>
  </InitiationCategories>
  <AssignmentStagesName>
    <string>Reviewers</string>
  </AssignmentStagesName>
</Metadata>

<Metadata>
  <Instantiation_FormURN>
    <string>http://server/_catalogs/wfpub/Approval - SharePoint
14/reviewapproval_1033.xsn</string>
  </Instantiation_FormURN>
  <InitiationCategories>
    <string>List;Language:1033;#ContentType;Language:1033</string>
  </InitiationCategories>
  <AssignmentStagesName>
    <string>Approvers</string>
  </AssignmentStagesName>
</Metadata>

<Metadata>
  <Instantiation_FormURN>
    <string>urn:schemas-microsoft-com:office:infopath:workflow:ReviewRouting-
Init:$Subst:LCID;</string>
  </Instantiation_FormURN>
  <InitiationCategories>
    <string>General</string>
  </InitiationCategories>
</Metadata>

<Metadata>
  <InitiationCategories>
    <string>SigClientRequired</string>
  </InitiationCategories>
  <Instantiation_FormURN>
    <string>urn:schemas-microsoft-com:office:infopath:workflow:CollectSignatures-
Init:$Subst:LCID;</string>
  </Instantiation_FormURN>
</Metadata>

<Metadata>
  <Instantiation_FormURN>
    <string>http://server/ catalogs/wfpub/Collect Feedback - SharePoint
14/reviewfeedback_1033.xsn</string>
  </Instantiation_FormURN>
  <InitiationCategories>
    <string>List;Language:1033;#ContentType;Language:1033</string>
  </InitiationCategories>
  <AssignmentStagesName>
    <string>Reviewers</string>
  </AssignmentStagesName>
</Metadata>

<Metadata>
  <InitiationCategories>
    <string>List;Language:1033;#ContentType;Language:1033;#SigClientRequired</string>
  </InitiationCategories>
  <Instantiation_FormURI>
```

```

        <string>http://server/_catalogs/wfpub/Collect Signatures - SharePoint
14/Signatures_1033.xsn</string>
    </Instantiation_FormURI>
    <SigClientSettings>
        <string>DigitalSignaturesEnabled;#UseAssociationDataToSuggestedSigners</string>
    </SigClientSettings>
    <AssignmentStagesName>
        <string>Signers</string>
    </AssignmentStagesName>
</Metadata>

<Metadata>
    <Instantiation_FormURN>
        <string>urn:schemas-microsoft-com:office:infopath:workflow:ReviewRouting-
Init:$Subst:LCID;</string>
    </Instantiation_FormURN>
    <InitiationCategories>
        <string>General</string>
    </InitiationCategories>
</Metadata>

<Metadata>
    <Instantiation_FormURN>
        <string>http://server/_catalogs/wfpub/Approval - SharePoint
14/reviewapproval_1033.xsn</string>
    </Instantiation_FormURN>
    <InitiationCategories>
        <string>List;Language:1033;#ContentType;Language:1033</string>
    </InitiationCategories>
    <AssignmentStagesName>
        <string>Approvers</string>
    </AssignmentStagesName>

</Metadata>

```

4.3.4 StartWorkflow.workflowParameters

As defined by this protocol, this element can contain any XML or be empty. Proof-of-concept implementations of workflow templates require the following XML format for this node when initializing a new workflow:

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xhtml="http://www.w3.org/1999/xhtml"
  xmlns:aml="http://schemas.microsoft.com/aml/2001/core"
  xmlns:dt="uuid:C2F41010-65B3-11d1-A29F-00AA00C14882"
  xmlns:o="urn:schemas-microsoft-com:office:office"
  xmlns:o12="http://schemas.microsoft.com/office/2004/7/core"
  xmlns:w10="urn:schemas-microsoft-com:office:word" xmlns:v="urn:schemas-
microsoft-com:vml"
  xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
  xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
  xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
  xmlns:s1="http://schemas.microsoft.com/schemaLibrary/2003/core"
  xmlns:dfs="http://schemas.microsoft.com/office/
infopath/2003/dataFormSolution"
  xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
  xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
  xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
  xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="myFields">
    <xsd:complexType>
      <xsd:sequence>

```

```

        <xsd:element ref="my:Reviewers" minOccurs="0"/>
        <xsd:element ref="my:CC" minOccurs="0"/>
        <xsd:element ref="my:DueDate" minOccurs="0"/>
        <xsd:element ref="my:Description" minOccurs="0"/>
        <xsd:element ref="my:Title" minOccurs="0"/>
        <xsd:element ref="my:DefaultTaskType" minOccurs="0"/>
        <xsd:element ref="my:CreateTasksInSerial" minOccurs="0"/>
        <xsd:element ref="my:AllowDelegation" minOccurs="0"/>
        <xsd:element ref="my:AllowChangeRequests" minOccurs="0"/>
        <xsd:element ref="my:StopOnAnyReject" minOccurs="0"/>
        <xsd:element ref="my:WantedTasks" minOccurs="0"/>
        <xsd:element ref="my:SetMetadataOnSuccess" minOccurs="0"/>
        <xsd:element ref="my:MetadataSuccessField" minOccurs="0"/>
        <xsd:element ref="my:MetadataSuccessValue" minOccurs="0"/>
        <xsd:element ref="my:ApproveWhenComplete" minOccurs="0"/>
        <xsd:element ref="my:TimePerTaskVal" minOccurs="0"/>
        <xsd:element ref="my:TimePerTaskType" minOccurs="0"/>
        <xsd:element ref="my:Voting" minOccurs="0"/>
        <xsd:element ref="my:MetadataTriggerField" minOccurs="0"/>
        <xsd:element ref="my:MetadataTriggerValue" minOccurs="0"/>
        <xsd:element ref="my:InitLock" minOccurs="0"/>
        <xsd:element ref="my:MetadataStop" minOccurs="0"/>
        <xsd:element ref="my:ItemChangeStop" minOccurs="0"/>
        <xsd:element ref="my:GroupTasks" minOccurs="0"/>
    </xsd:sequence>
    <xsd:anyAttribute processContents="lax"
        namespace="http://www.w3.org/XML/1998/namespace"/>
</xsd:complexType>
</xsd:element>
<xsd:element name="Reviewers">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0"
                maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="Person">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:DisplayName" minOccurs="0"/>
            <xsd:element ref="my:AccountId" minOccurs="0"/>
            <xsd:element ref="my:AccountType" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="DisplayName" type="xsd:string"/>
<xsd:element name="AccountId" type="xsd:string"/>
<xsd:element name="AccountType" type="xsd:string"/>
<xsd:element name="CC">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="DueDate" nillable="true" type="xsd:date"/>
<xsd:element name="Description" type="xsd:string"/>
<xsd:element name="Title" type="xsd:string"/>
<xsd:element name="DefaultTaskType" nillable="true" type="xsd:integer"/>
<xsd:element name="CreateTasksInSerial" nillable="true" type="xsd:boolean"/>
<xsd:element name="AllowDelegation" nillable="true" type="xsd:boolean"/>
<xsd:element name="AllowChangeRequests" nillable="true" type="xsd:boolean"/>
<xsd:element name="StopOnAnyReject" nillable="true" type="xsd:boolean"/>
<xsd:element name="WantedTasks" nillable="true" type="xsd:integer"/>
<xsd:element name="SetMetadataOnSuccess" nillable="true" type="xsd:boolean"/>
<xsd:element name="MetadataSuccessField" type="xsd:string"/>
<xsd:element name="MetadataSuccessValue" type="xsd:string"/>
<xsd:element name="ApproveWhenComplete" nillable="true" type="xsd:boolean"/>

```

```

    <xsd:element name="TimePerTaskVal" nillable="true" type="xsd:integer"/>
    <xsd:element name="TimePerTaskType" nillable="true" type="xsd:integer"/>
    <xsd:element name="Voting" nillable="true" type="xsd:boolean"/>
    <xsd:element name="MetadataTriggerField" type="xsd:string"/>
    <xsd:element name="MetadataTriggerValue" type="xsd:string"/>
    <xsd:element name="InitLock" nillable="true" type="xsd:boolean"/>
    <xsd:element name="MetadataStop" nillable="true" type="xsd:boolean"/>
    <xsd:element name="ItemChangeStop" nillable="true" type="xsd:boolean"/>
    <xsd:element name="GroupTasks" nillable="true" type="xsd:boolean"/>
  </xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:sl="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="myFields">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="my:DueDate" minOccurs="0"/>
        <xsd:element ref="my:DueDateDays" minOccurs="0"/>
        <xsd:element ref="my:TaskDescription" minOccurs="0"/>
        <xsd:element ref="my:TranslatorsList" minOccurs="0"/>
        <xsd:element ref="my:ManuallyInitiated" minOccurs="0"/>
        <xsd:element ref="my:StopOnBaseDocChange" minOccurs="0"/>
      </xsd:sequence>
      <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="DueDate" nillable="true" type="xsd:date"/>
  <xsd:element name="DueDateDays" nillable="true" type="xsd:integer"/>
  <xsd:element name="TaskDescription" type="xsd:string"/>
  <xsd:element name="TranslatorsList" type="xsd:string"/>
  <xsd:element name="ManuallyInitiated" nillable="true" type="xsd:boolean"/>
  <xsd:element name="StopOnBaseDocChange" nillable="true" type="xsd:boolean"/>
</xsd:schema>

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:sl="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:attribute name="SignatureSpotID" type="xsd:string"/>

```

```

<xsd:attribute name="SuggestedSigner" type="xsd:string"/>
<xsd:element name="myFields">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:CC" minOccurs="0"/>
      <xsd:element ref="my:SignatureSpots" minOccurs="0"/>
      <xsd:element ref="my:IsSerial" minOccurs="0"/>
    </xsd:sequence>
    <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
  </xsd:complexType>
</xsd:element>
<xsd:element name="CC">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="Person">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:DisplayName" minOccurs="0"/>
      <xsd:element ref="my:AccountId" minOccurs="0"/>
      <xsd:element ref="my:AccountType" minOccurs="0"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="DisplayName" type="xsd:string"/>
<xsd:element name="AccountId" type="xsd:string"/>
<xsd:element name="AccountType" type="xsd:string"/>
<xsd:element name="SignatureSpots">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:SignatureSpot" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="SignatureSpot">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:Assignee" minOccurs="0"/>
    </xsd:sequence>
    <xsd:attribute ref="my:SignatureSpotID"/>
    <xsd:attribute ref="my:SuggestedSigner"/>
  </xsd:complexType>
</xsd:element>
<xsd:element name="Assignee">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="IsSerial" nillable="true" type="xsd:boolean"/>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"

```

```

xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:sl="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="myFields">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="my:fieldALS" minOccurs="0"/>
        <xsd:element ref="my:InitiatedBy" minOccurs="0"/>
        <xsd:element ref="my:Reviewers" minOccurs="0"/>
        <xsd:element ref="my:DefaultTaskType" minOccurs="0"/>
        <xsd:element ref="my:MySignatureURL" minOccurs="0"/>
        <xsd:element ref="my:LastSignatureID" minOccurs="0"/>
        <xsd:element ref="my:CurrentSignatureID" minOccurs="0"/>
        <xsd:element ref="my:AllowArbitraryApproval" minOccurs="0"/>
        <xsd:element ref="my:RejectedImageURL" minOccurs="0"/>
        <xsd:element ref="my:CanSubmit" minOccurs="0"/>
        <xsd:element ref="my:EawfAttachments" minOccurs="0"/>
        <xsd:element ref="my:group1" minOccurs="0"/>
        <xsd:element ref="my:group2" minOccurs="0"/>
        <xsd:element ref="my:group3" minOccurs="0"/>
      </xsd:sequence>
      <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="fieldALS" type="xsd:string"/>
  <xsd:element name="InitiatedBy" type="xsd:string"/>
  <xsd:element name="Reviewers">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="Person">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="my:ID" minOccurs="0"/>
        <xsd:element ref="my:Type" minOccurs="0"/>
        <xsd:element ref="my:DisplayName" minOccurs="0"/>
        <xsd:element ref="my:EmailAddress" minOccurs="0"/>
        <xsd:element ref="my:Order" minOccurs="0"/>
        <xsd:element ref="my:Comment" minOccurs="0"/>
        <xsd:element ref="my:ApprovalType" minOccurs="0"/>
        <xsd:element ref="my:SignatureID" minOccurs="0"/>
        <xsd:element ref="my:Department" minOccurs="0"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="ID" type="xsd:string"/>
  <xsd:element name="Type" type="xsd:string"/>
  <xsd:element name="DisplayName" type="xsd:string"/>
  <xsd:element name="EmailAddress" type="xsd:string"/>
  <xsd:element name="Order" type="xsd:string"/>
  <xsd:element name="Comment" type="xsd:string"/>
  <xsd:element name="ApprovalType" type="xsd:string"/>
  <xsd:element name="SignatureID" type="xsd:string"/>
  <xsd:element name="Department" type="xsd:string"/>
  <xsd:element name="DefaultTaskType" nillable="true" type="xsd:integer"/>
  <xsd:element name="MySignatureURL" type="xsd:string"/>
  <xsd:element name="LastSignatureID" type="xsd:string"/>
  <xsd:element name="CurrentSignatureID" type="xsd:string"/>
  <xsd:element name="AllowArbitraryApproval" nillable="true" type="xsd:boolean"/>
  <xsd:element name="RejectedImageURL" type="xsd:string"/>
  <xsd:element name="CanSubmit" nillable="true" type="xsd:boolean"/>
  <xsd:element name="EawfAttachments">
    <xsd:complexType>
      <xsd:sequence>

```

```

        <xsd:element ref="my:EawfAttachment" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
</xsd:complexType>
</xsd:element>
<xsd:element name="EawfAttachment">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:AttachedFile" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="AttachedFile" nillable="true" type="xsd:base64Binary"/>
<xsd:element name="group1">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="group2">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="group3">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
</xsd:schema>

```

This XML is handled by the protocol server verbatim, without any modifications. The protocol server supplies this data to the new workflow being created.

4.3.5 AlterToDo.taskData

As defined by this protocol, this element can contain any XML or be empty. Proof-of-concept implementations of workflow templates require the following XML format for this node when initializing a new workflow:

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                <xsd:element ref="my:DelegateTo" minOccurs="0"/>
                <xsd:element ref="my:SigInstructions" minOccurs="0"/>
                <xsd:element ref="my:SigDetails" minOccurs="0"/>
                <xsd:element ref="my:Status" minOccurs="0"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>

```

```

        <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="TaskStatus" type="xsd:string"/>
<xsd:element name="DelegateTo">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="Person">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:DisplayName" minOccurs="0"/>
            <xsd:element ref="my:AccountId" minOccurs="0"/>
            <xsd:element ref="my:AccountType" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="DisplayName" type="xsd:string"/>
<xsd:element name="AccountId" type="xsd:string"/>
<xsd:element name="AccountType" type="xsd:string"/>
<xsd:element name="SigInstructions">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:OffsiteParticipant" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="OffsiteParticipant">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="SigDetails">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="Status" type="xsd:string"/>
</xsd:schema>

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
    <xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:sl="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
        <xsd:element name="myFields">
            <xsd:complexType>
                <xsd:sequence>
                    <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                    <xsd:element ref="my:Comments" minOccurs="0"/>
                    <xsd:element ref="my:AssigneeEmail" minOccurs="0"/>
                    <xsd:element ref="my:Description" minOccurs="0"/>
                </xsd:sequence>
            </xsd:complexType>
        </xsd:element>

```



```

    <xsd:element ref="my:IsHold" minOccurs="0"/>
    <xsd:element ref="my:fieldALS" minOccurs="0"/>
    <xsd:element ref="my:Reviewers" minOccurs="0"/>
    <xsd:element ref="my:IsArbitrary" minOccurs="0"/>
    <xsd:element ref="my:IsInvalidated" minOccurs="0"/>
    <xsd:element ref="my:IsALSAllowed" minOccurs="0"/>
    <xsd:element ref="my:MySignatureURL" minOccurs="0"/>
    <xsd:element ref="my>LastSignatureID" minOccurs="0"/>
    <xsd:element ref="my:CurrentSignatureID" minOccurs="0"/>
    <xsd:element ref="my:CurrentSigner" minOccurs="0"/>
    <xsd:element ref="my:CurrentSignerTitle" minOccurs="0"/>
    <xsd:element ref="my:CurrentApprovalType" minOccurs="0"/>
    <xsd:element ref="my>LastApprover" minOccurs="0"/>
    <xsd:element ref="my:EnableArbitraryApproval" minOccurs="0"/>
    <xsd:element ref="my:RejectedImageURL" minOccurs="0"/>
    <xsd:element ref="my:CanSubmit" minOccurs="0"/>
    <xsd:element ref="my:EawfAttachments" minOccurs="0"/>
    <xsd:element ref="my:group1" minOccurs="0"/>
    <xsd:element ref="my:group2" minOccurs="0"/>
    <xsd:element ref="my:group3" minOccurs="0"/>
    <xsd:element ref="my:group4" minOccurs="0"/>
  </xsd:sequence>
  <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
</xsd:complexType>
</xsd:element>
<xsd:element name="TaskStatus" type="xsd:string"/>
<xsd:element name="Comments" type="xsd:string"/>
<xsd:element name="AssigneeEmail" type="xsd:string"/>
<xsd:element name="Description" type="xsd:string"/>
<xsd:element name="IsHold" nillable="true" type="xsd:boolean"/>
<xsd:element name="fieldALS" type="xsd:string"/>
<xsd:element name="Reviewers">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="Person">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:ID" minOccurs="0"/>
      <xsd:element ref="my:Type" minOccurs="0"/>
      <xsd:element ref="my:DisplayName" minOccurs="0"/>
      <xsd:element ref="my:EmailAddress" minOccurs="0"/>
      <xsd:element ref="my:Order" minOccurs="0"/>
      <xsd:element ref="my:Comment" minOccurs="0"/>
      <xsd:element ref="my:ApprovalType" minOccurs="0"/>
      <xsd:element ref="my:SignatureID" minOccurs="0"/>
      <xsd:element ref="my:Department" minOccurs="0"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="ID" type="xsd:string"/>
<xsd:element name="Type" type="xsd:string"/>
<xsd:element name="DisplayName" type="xsd:string"/>
<xsd:element name="EmailAddress" type="xsd:string"/>
<xsd:element name="Order" type="xsd:string"/>
<xsd:element name="Comment" type="xsd:string"/>
<xsd:element name="ApprovalType" type="xsd:string"/>
<xsd:element name="SignatureID" type="xsd:string"/>
<xsd:element name="Department" type="xsd:string"/>
<xsd:element name="IsArbitrary" nillable="true" type="xsd:boolean"/>
<xsd:element name="IsInvalidated" nillable="true" type="xsd:boolean"/>
<xsd:element name="IsALSAllowed" nillable="true" type="xsd:boolean"/>
<xsd:element name="MySignatureURL" type="xsd:string"/>
<xsd:element name="LastSignatureID" type="xsd:string"/>
<xsd:element name="CurrentSignatureID" type="xsd:string"/>

```

```

<xsd:element name="CurrentSigner" type="xsd:string"/>
<xsd:element name="CurrentSignerTitle" type="xsd:string"/>
<xsd:element name="CurrentApprovalType" type="xsd:string"/>
<xsd:element name="LastApprover" type="xsd:string"/>
<xsd:element name="EnableArbitraryApproval" nillable="true" type="xsd:boolean"/>
<xsd:element name="CanSubmit" nillable="true" type="xsd:boolean"/>
<xsd:element name="RejectedImageURL" type="xsd:string"/>
<xsd:element name="EawfAttachments">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:EawfAttachment" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="EawfAttachment">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="my:AttachedFile" minOccurs="0"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="AttachedFile" nillable="true" type="xsd:base64Binary"/>
<xsd:element name="group1">
  <xsd:complexType>
    <xsd:sequence/>
  </xsd:complexType>
</xsd:element>
<xsd:element name="group2">
  <xsd:complexType>
    <xsd:sequence/>
  </xsd:complexType>
</xsd:element>
<xsd:element name="group3">
  <xsd:complexType>
    <xsd:sequence/>
  </xsd:complexType>
</xsd:element>
<xsd:element name="group4">
  <xsd:complexType>
    <xsd:sequence/>
  </xsd:complexType>
</xsd:element>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:sl="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="myFields">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="my:TaskStatus" minOccurs="0"/>
        <xsd:element ref="my:Description" minOccurs="0"/>
        <xsd:element ref="my:ActionGroupChoice" minOccurs="0"/>
        <xsd:element ref="my:CommentsTextBox" minOccurs="0"/>
        <xsd:element ref="my:KeepMetadataCheckBox" minOccurs="0"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

```

```

        <xsd:element ref="my:group5" minOccurs="0"/>
        <xsd:element ref="my:group7" minOccurs="0"/>
        <xsd:element ref="my:field1" minOccurs="0"/>
        <xsd:element ref="my:group8" minOccurs="0"/>
        <xsd:element ref="my:group9" minOccurs="0"/>
        <xsd:element ref="my:group10" minOccurs="0"/>
    </xsd:sequence>
    <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
</xsd:complexType>
</xsd:element>
<xsd:element name="TaskStatus" type="xsd:string"/>
<xsd:element name="Description" type="xsd:string"/>
<xsd:element name="ActionGroupChoice" type="xsd:string"/>
<xsd:element name="CommentsTextBox" type="xsd:string"/>
<xsd:element name="KeepMetadataCheckBox" nillable="true" type="xsd:boolean"/>
<xsd:element name="group5">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="group7">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="field1" nillable="true" type="xsd:boolean"/>
<xsd:element name="group8">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="group9">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="group10">
    <xsd:complexType>
        <xsd:sequence/>
    </xsd:complexType>
</xsd:element>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:sl="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:sl="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                <xsd:element ref="my:Comments" minOccurs="0"/>
                <xsd:element ref="my:DelegateTo" minOccurs="0"/>
                <xsd:element ref="my:NewDescription" minOccurs="0"/>
                <xsd:element ref="my:NewDueDate" minOccurs="0"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>

```

```

        <xsd:element ref="my:RequestTo" minOccurs="0"/>
        <xsd:element ref="my:Decline" minOccurs="0"/>
        <xsd:element ref="my:dcr" minOccurs="0"/>
        <xsd:element ref="my:Status" minOccurs="0"/>
    </xsd:sequence>
    <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
</xsd:complexType>
</xsd:element>
<xsd:element name="TaskStatus" type="xsd:string"/>
<xsd:element name="Comments" type="xsd:string"/>
<xsd:element name="DelegateTo">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="Person">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:DisplayName" minOccurs="0"/>
            <xsd:element ref="my:AccountId" minOccurs="0"/>
            <xsd:element ref="my:AccountType" minOccurs="0"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="DisplayName" type="xsd:string"/>
<xsd:element name="AccountId" type="xsd:string"/>
<xsd:element name="AccountType" type="xsd:string"/>
<xsd:element name="NewDescription" type="xsd:string"/>
<xsd:element name="NewDueDate" nillable="true" type="xsd:date"/>
<xsd:element name="RequestTo">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element ref="my:Person" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="Decline" nillable="true" type="xsd:integer"/>
<xsd:element name="dcr" nillable="true" type="xsd:integer"/>
<xsd:element name="Status" type="xsd:string"/>
</xsd:schema>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema targetNamespace="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xhtml="http://www.w3.org/1999/xhtml"
xmlns:aml="http://schemas.microsoft.com/aml/2001/core" xmlns:dt="uuid:C2F41010-65B3-11d1-
A29F-00AA00C14882" xmlns:o="urn:schemas-microsoft-com:office:office"
xmlns:ol2="http://schemas.microsoft.com/office/2004/7/core" xmlns:w10="urn:schemas-microsoft-
com:office:word" xmlns:v="urn:schemas-microsoft-com:vml"
xmlns:w12="http://schemas.microsoft.com/office/word/2004/6/wordml"
xmlns:wx="http://schemas.microsoft.com/office/word/2003/auxHint"
xmlns:w="http://schemas.microsoft.com/office/word/2003/wordml"
xmlns:s1="http://schemas.microsoft.com/schemaLibrary/2003/core"
xmlns:dfs="http://schemas.microsoft.com/office/infopath/2003/dataFormSolution"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://microsoft.com/wsdl/types/" xmlns:z="#RowsetSchema"
xmlns:my="http://schemas.microsoft.com/office/infopath/2003/myXSD"
xmlns:xd="http://schemas.microsoft.com/office/infopath/2003"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:element name="myFields">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element ref="my:TaskStatus" minOccurs="0"/>
                <xsd:element ref="my:Description" minOccurs="0"/>
                <xsd:element ref="my:Status" minOccurs="0"/>
            </xsd:sequence>
        </xsd:complexType>
    </xsd:element>

```

```
        <xsd:anyAttribute processContents="lax"
namespace="http://www.w3.org/XML/1998/namespace"/>
    </xsd:complexType>
</xsd:element>
<xsd:element name="TaskStatus" type="xsd:string"/>
<xsd:element name="Description" type="xsd:string"/>
<xsd:element name="Status" type="xsd:string"/>
</xsd:schema>
```

As defined by this protocol, **AlterToDo.taskData** is used to modify fields on a workflow task. Proof-of-concept implementations do this by interpreting the name of each subnode under the root node of the **AlterToDo.taskData** element as the name of a field to be altered. The contents of each subnode are treated as text data used to set the value of the field.

If the type of the field being modified is **datetime**, the provided text data uses **Coordinated Universal Time (UTC)** formatting. If the type of the field being modified is a user, the text data can be either of the following:

- A valid e-mail address.
- An XML node with a subnode **AccountId**, where the **AccountId** subnode contains a valid e-mail address.

5 Security

5.1 Security Considerations for Implementers

None.

5.2 Index of Security Parameters

None.

6 Appendix A: Full WSDL

For ease of implementation, the full WSDL and schema are provided in this appendix.

```
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tns="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:s1="http://www.w3.org/2001/XMLSchema" xmlns:z="#RowsetSchema"
xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:rs="urn:schemas-microsoft-com:rowset"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
targetNamespace="http://schemas.microsoft.com/sharepoint/soap/workflow/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <s:schema elementFormDefault="qualified"
targetNamespace="http://schemas.microsoft.com/sharepoint/soap/workflow/">
      <s:import namespace="http://www.w3.org/2001/XMLSchema/" />
      <s:import namespace="http://microsoft.com/wsdl/types/" />
      <s:element name="GetToDosForItem">
        <s:complexType>
          <s:sequence>
            <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetToDosForItemResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="GetToDosForItemResult" minOccurs="0">
              <s:complexType mixed="true">
                <s:sequence>
                  <s:element name="ToDoData" >
                    <s:complexType>
                      <s:sequence>
                        <s:element name="xml" type="rs:data" minOccurs="0"
maxOccurs="1" />
                      </s:sequence>
                    </s:complexType>
                  </s:element>
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetTemplatesForItem">
        <s:complexType>
          <s:sequence>
            <s:element name="item" type="s:string" minOccurs="1" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="GetTemplatesForItemResponse">
        <s:complexType>
          <s:sequence>
            <s:element name="GetTemplatesForItemResult" minOccurs="0">
              <s:complexType mixed="true">
                <s:sequence>
                  <s:element name="TemplateData" >
                    <s:complexType>
                      <s:sequence>
                        <s:element name="Web" minOccurs="1" maxOccurs="1" >
                          <s:complexType>
                            <s:attribute name="Title" type="s:string"
use="required" />
                            <s:attribute name="Url" type="s:string" use="required"
/>
                          </s:complexType>
                        </s:element>
                      </s:sequence>
                    </s:complexType>
                  </s:element>
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
  </wsdl:types>

```

```

        </s:complexType>
      </s:element>
      <s:element name="List" minOccurs="1" maxOccurs="1" >
        <s:complexType>
          <s:attribute name="Title" type="s:string"
            use="required" />
          <s:attribute name="Url" type="s:string" use="required"
            />
        </s:complexType>
      </s:element>
      <s:element name="WorkflowTemplates" >
        <s:complexType>
          <s:sequence>
            <s:element name="WorkflowTemplate" minOccurs="0"
              maxOccurs="unbounded">
              <s:complexType>
                <s:sequence>
                  <s:element name="WorkflowTemplateIdSet"
                    minOccurs="1" maxOccurs="1" >
                    <s:complexType>
                      <s:attribute name="TemplateId"
                        type="sl:guid" use="required" />
                      <s:attribute name="BaseId"
                        type="sl:guid" use="required" />
                    </s:complexType>
                  </s:element>
                  <s:element name="AssociationData"
                    minOccurs="0" maxOccurs="1" >
                    <s:complexType>
                      <s:sequence>
                        <s:any/>
                      </s:sequence>
                    </s:complexType>
                  </s:element>
                  <s:element name="Metadata" minOccurs="1"
                    maxOccurs="1">
                    <s:complexType>
                      <s:all>
                        <s:element
                          name="InitiationCategories" minOccurs="0" maxOccurs="1">
                          <s:complexType>
                            <s:sequence>
                              <s:any/>
                            </s:sequence>
                          </s:complexType>
                        </s:element>
                        <s:element
                          name="Instantiation_FormURN" minOccurs="0" maxOccurs="1">
                          <s:complexType>
                            <s:sequence>
                              <s:any/>
                            </s:sequence>
                          </s:complexType>
                        </s:element>
                        <s:element
                          name="Instantiation_FormURI" minOccurs="0" maxOccurs="1">
                          <s:complexType>
                            <s:sequence>
                              <s:any/>
                            </s:sequence>
                          </s:complexType>
                        </s:element>
                        <s:element
                          name="AssignmentStagesName" minOccurs="0" maxOccurs="1">
                          <s:complexType>
                            <s:sequence>
                              <s:any/>
                            </s:sequence>
                          </s:complexType>
                        </s:element>
                      </s:all>
                    </s:complexType>
                  </s:element>
                </s:sequence>
              </s:complexType>
            </s:element>
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>

```



```

minOccurs="0" maxOccurs="1">
    </s:complexType>
    </s:element>
    <s:element name="SigClientSettings"
        <s:complexType>
            <s:sequence>
                <s:any/>
            </s:sequence>
        </s:complexType>
    </s:element>
</s:all>

    </s:complexType>
    </s:element>
</s:sequence>
<s:attribute name="Name" type="s:string"
use="required" />
<s:attribute name="Description" type="s:string"
use="required" />
<s:attribute name="InstantiationUrl"
type="s:string" />
    </s:complexType>
    </s:element>
    </s:sequence>
    </s:complexType>
    </s:element>
    </s:sequence>
    </s:complexType>
    </s:element>
    </s:sequence>
    </s:complexType>
    </s:element>
    </s:sequence>
    </s:complexType>
    </s:element>
    <s:element name="StartWorkflow">
        <s:complexType>
            <s:sequence>
                <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
                <s:element name="templateId" type="s1:guid"/>
                <s:element name="workflowParameters" minOccurs="0">
                    <s:complexType mixed="true">
                        <s:sequence>
                            <s:any/>
                        </s:sequence>
                    </s:complexType>
                </s:element>
            </s:sequence>
        </s:complexType>
    </s:element>
    <s:element name="StartWorkflowResponse">
        <s:complexType>
            <s:sequence>
                <s:element name="StartWorkflowResult" minOccurs="1"/>
            </s:sequence>
        </s:complexType>
    </s:element>
    <s:element name="AlterToDo">
        <s:complexType>
            <s:sequence>
                <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1" />
                <s:element name="todoId" type="s:int" minOccurs="1" maxOccurs="1" />
                <s:element name="todoListId" type="s1:guid" minOccurs="1" maxOccurs="1" />
                <s:element name="taskData" minOccurs="0" maxOccurs="1" >
                    <s:complexType>
                        <s:sequence>
                            <s:any/>
                        </s:sequence>
                    </s:complexType>
                </s:element>
            </s:sequence>
        </s:complexType>
    </s:element>

```

```

        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="AlterToDoResponse">
    <s:complexType>
      <s:sequence>
        <s:element name="AlterToDoResult" minOccurs="1" maxOccurs="1" >
          <s:complexType mixed="true">
            <s:sequence>
              <s:element name="fSuccess" type="s:int" minOccurs="1" maxOccurs="1" />
            </s:sequence>
          </s:complexType>
        </s:element>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetWorkflowDataForItem">
    <s:complexType>
      <s:sequence>
        <s:element name="item" type="s:string" minOccurs="1"/>
      </s:sequence>
    </s:complexType>
  </s:element>
  <s:element name="GetWorkflowDataForItemResponse">
    <s:complexType>
      <s:sequence>
        <s:element name="GetWorkflowDataForItemResult" minOccurs="1" maxOccurs="1">
          <s:complexType>
            <s:sequence>
              <s:element name="WorkflowData" minOccurs="1" maxOccurs="1">
                <s:complexType>
                  <s:sequence>
                    <s:element name="ToDoData" >
                      <s:complexType>
                        <s:sequence>
                          <s:element name="xml" type="rs:data" minOccurs="0"
maxOccurs="1" />
                        </s:sequence>
                      </s:complexType>
                    </s:element>
                    <s:element name="TemplateData" >
                      <s:complexType>
                        <s:sequence>
                          <s:element name="Web" minOccurs="1" maxOccurs="1" >
                            <s:complexType>
                              <s:attribute name="Title" type="s:string"
use="required" />
                              <s:attribute name="Url" type="s:string"
use="required" />
                            </s:complexType>
                          </s:element>
                          <s:element name="List" minOccurs="1" maxOccurs="1" >
                            <s:complexType>
                              <s:attribute name="Title" type="s:string"
use="required" />
                              <s:attribute name="Url" type="s:string"
use="required" />
                            </s:complexType>
                          </s:element>
                        <s:element name="WorkflowTemplates" >
                          <s:complexType>
                            <s:sequence>
                              <s:element name="WorkflowTemplate"
minOccurs="0" maxOccurs="unbounded">
                                <s:complexType>
                                  <s:sequence>
                                    <s:element
name="WorkflowTemplateIdSet" minOccurs="1" maxOccurs="1" >

```

```

type="s1:guid" use="required" />
type="s1:guid" use="required" />
minOccurs="0" maxOccurs="1" >
maxOccurs="1">
name="InitiationCategories" minOccurs="0" maxOccurs="1">
name="Instantiation_FormURN" minOccurs="0" maxOccurs="1">
name="Instantiation_FormURI" minOccurs="0" maxOccurs="1">
name="AssignmentStagesName" minOccurs="0" maxOccurs="1">
name="SigClientSettings" minOccurs="0" maxOccurs="1">
use="required" />
type="s:string" use="required" />
<s:complexType>
  <s:attribute name="TemplateId"
  <s:attribute name="BaseId"
</s:complexType>
</s:element>
<s:element name="AssociationData"
  <s:complexType>
    <s:sequence>
      <s:any/>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="Metadata" minOccurs="1"
<s:complexType>
  <s:all>
    <s:element
  <s:complexType>
    <s:sequence>
      <s:any/>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element
  <s:complexType>
    <s:sequence>
      <s:any/>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element
  <s:complexType>
    <s:sequence>
      <s:any/>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element
  <s:complexType>
    <s:sequence>
      <s:any/>
    </s:sequence>
  </s:complexType>
</s:element>
</s:all>
</s:complexType>
</s:element>
</s:sequence>
<s:attribute name="Name" type="s:string"
<s:attribute name="Description"

```



```
use="required"/>
use="required"/>
use="required" />
use="required" />
use="required"/>
use="required"/>
use="required"/>
use="required"/>

    <s:attribute name="TextStatus5" type="s:string"
    <s:attribute name="Modifications" type="s:string"
    <s:attribute name="ActivityDetails" type="s:string"
    <s:attribute name="CorrelationId" type="s:string"
    <s:attribute name="InstanceData" type="s:string"
    <s:attribute name="InstanceDataSize" type="s:int"
    <s:attribute name="InternalState" type="s:int"
    <s:attribute name="ProcessingId" type="s:string"

    </s:complexType>
  </s:element>
</s:sequence>
</s:complexType>
</s:element>
<s:element name="DefaultWorkflows" minOccurs="1" maxOccurs="1" >
  <s:complexType>
    <s:sequence>
      <s:element name="DefaultWorkflow" minOccurs="0" maxOccurs="1" >
        <s:complexType>
          <s:attribute name="Event" type="s:string" use="required"/>
          <s:attribute name="TemplateId" type="s1:guid" use="required"/>
        </s:complexType>
      </s:element>
    </s:sequence>
  </s:complexType>
</s:element>
</s:sequence>
</s:complexType>
</s:element>
</s:sequence>
</s:complexType>
</s:element>
</s:sequence>
</s:complexType>
</s:element>
<s:element name="ClaimReleaseTask">
  <s:complexType>
    <s:sequence>
      <s:element name="item" type="s:string" minOccurs="1" maxOccurs="1"/>
      <s:element name="taskId" type="s:int" minOccurs="1" maxOccurs="1"/>
      <s:element name="listId" type="s1:guid" minOccurs="1" maxOccurs="1"/>
      <s:element name="fClaim" type="s:boolean" minOccurs="1" maxOccurs="1"/>
    </s:sequence>
  </s:complexType>
</s:element>
<s:element name="ClaimReleaseTaskResponse">
  <s:complexType>
    <s:sequence>
      <s:element name="ClaimReleaseTaskResult" minOccurs="1">
        <s:complexType mixed="true">
          <s:sequence>
            <s:element name="TaskData" minOccurs="1" maxOccurs="1">
              <s:complexType>
                <s:attribute name="AssignedTo" type="s:string"
                <s:attribute name="TaskGroup" type="s:string"
                <s:attribute name="ItemId" type="s:int" use="required"/>


```

```

                                <s:attribute name="ListId" type="s1:guid"
use="required"/>
                                </s:complexType>
                            </s:element>
                        </s:sequence>
                    </s:complexType>
                </s:element>
            </s:sequence>
        </s:complexType>
    </s:element>
    <s:element name="GetWorkflowTaskData">
        <s:complexType>
            <s:sequence>
                <s:element name="item" type="s:string" minOccurs="1"/>
                <s:element name="taskId" type="s:int"/>
                <s:element name="listId" type="s1:guid"/>
            </s:sequence>
        </s:complexType>
    </s:element>
    <s:element name="GetWorkflowTaskDataResponse">
        <s:complexType>
            <s:sequence>
                <s:element name="GetWorkflowTaskDataResult" >
                    <s:complexType>
                        <s:sequence>
                            <s:any minOccurs="0" maxOccurs="unbounded" />
                        </s:sequence>
                    </s:complexType>
                </s:element>
            </s:sequence>
        </s:complexType>
    </s:element>
</s:schema>
<s:schema elementFormDefault="qualified"
targetNamespace="http://microsoft.com/wsdl/types/">
    <s:simpleType name="guid">
        <s:restriction base="s:string">
            <s:pattern value="[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-
[0-9a-fA-F]{12}" />
        </s:restriction>
    </s:simpleType>
</s:schema>
</wsdl:types>
<wsdl:message name="GetToDosForItemSoapIn">
    <wsdl:part name="parameters" element="tns:GetToDosForItem" />
</wsdl:message>
<wsdl:message name="GetToDosForItemSoapOut">
    <wsdl:part name="parameters" element="tns:GetToDosForItemResponse" />
</wsdl:message>
<wsdl:message name="GetTemplatesForItemSoapIn">
    <wsdl:part name="parameters" element="tns:GetTemplatesForItem" />
</wsdl:message>
<wsdl:message name="GetTemplatesForItemSoapOut">
    <wsdl:part name="parameters" element="tns:GetTemplatesForItemResponse" />
</wsdl:message>
<wsdl:message name="StartWorkflowSoapIn">
    <wsdl:part name="parameters" element="tns:StartWorkflow" />
</wsdl:message>
<wsdl:message name="StartWorkflowSoapOut">
    <wsdl:part name="parameters" element="tns:StartWorkflowResponse" />
</wsdl:message>
<wsdl:message name="AlterToDoSoapIn">
    <wsdl:part name="parameters" element="tns:AlterToDo" />
</wsdl:message>
<wsdl:message name="AlterToDoSoapOut">
    <wsdl:part name="parameters" element="tns:AlterToDoResponse" />
</wsdl:message>
<wsdl:message name="GetWorkflowDataForItemSoapIn">
    <wsdl:part name="parameters" element="tns:GetWorkflowDataForItem" />

```

```

</wsdl:message>
<wsdl:message name="GetWorkflowDataForItemSoapOut">
  <wsdl:part name="parameters" element="tns:GetWorkflowDataForItemResponse" />
</wsdl:message>
<wsdl:message name="ClaimReleaseTaskSoapIn">
  <wsdl:part name="parameters" element="tns:ClaimReleaseTask" />
</wsdl:message>
<wsdl:message name="ClaimReleaseTaskSoapOut">
  <wsdl:part name="parameters" element="tns:ClaimReleaseTaskResponse" />
</wsdl:message>
<wsdl:message name="GetWorkflowTaskDataSoapIn">
  <wsdl:part name="parameters" element="tns:GetWorkflowTaskData" />
</wsdl:message>
<wsdl:message name="GetWorkflowTaskDataSoapOut">
  <wsdl:part name="parameters" element="tns:GetWorkflowTaskDataResponse" />
</wsdl:message>
<wsdl:portType name="WorkflowSoap">
  <wsdl:operation name="GetToDoForItem">
    <wsdl:input message="tns:GetToDoForItemSoapIn" />
    <wsdl:output message="tns:GetToDoForItemSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetTemplatesForItem">
    <wsdl:input message="tns:GetTemplatesForItemSoapIn" />
    <wsdl:output message="tns:GetTemplatesForItemSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="StartWorkflow">
    <wsdl:input message="tns:StartWorkflowSoapIn" />
    <wsdl:output message="tns:StartWorkflowSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="AlterToDo">
    <wsdl:input message="tns:AlterToDoSoapIn" />
    <wsdl:output message="tns:AlterToDoSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetWorkflowDataForItem">
    <wsdl:input message="tns:GetWorkflowDataForItemSoapIn" />
    <wsdl:output message="tns:GetWorkflowDataForItemSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="ClaimReleaseTask">
    <wsdl:input message="tns:ClaimReleaseTaskSoapIn" />
    <wsdl:output message="tns:ClaimReleaseTaskSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="GetWorkflowTaskData">
    <wsdl:input message="tns:GetWorkflowTaskDataSoapIn" />
    <wsdl:output message="tns:GetWorkflowTaskDataSoapOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="WorkflowSoap" type="tns:WorkflowSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetToDoForItem">
    <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetToDoForItem"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="GetTemplatesForItem">
    <soap:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetTemplatesForItem"
style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>

```

```

        </wsdl:operation>
        <wsdl:operation name="StartWorkflow">
          <soap:operation
            soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/StartWorkflow"
            style="document" />
          <wsdl:input>
            <soap:body use="literal" />
          </wsdl:input>
          <wsdl:output>
            <soap:body use="literal" />
          </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="AlterToDo">
          <soap:operation
            soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/AlterToDo" style="document"
            />
          <wsdl:input>
            <soap:body use="literal" />
          </wsdl:input>
          <wsdl:output>
            <soap:body use="literal" />
          </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="GetWorkflowDataForItem">
          <soap:operation
            soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowDataForItem"
            style="document" />
          <wsdl:input>
            <soap:body use="literal" />
          </wsdl:input>
          <wsdl:output>
            <soap:body use="literal" />
          </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="ClaimReleaseTask">
          <soap:operation
            soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/ClaimReleaseTask"
            style="document" />
          <wsdl:input>
            <soap:body use="literal" />
          </wsdl:input>
          <wsdl:output>
            <soap:body use="literal" />
          </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="GetWorkflowTaskData">
          <soap:operation
            soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowTaskData"
            style="document" />
          <wsdl:input>
            <soap:body use="literal" />
          </wsdl:input>
          <wsdl:output>
            <soap:body use="literal" />
          </wsdl:output>
        </wsdl:operation>
      </wsdl:binding>
      <wsdl:binding name="WorkflowSoap12" type="tns:WorkflowSoap">
        <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
        <wsdl:operation name="GetToDosForItem">
          <soap12:operation
            soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetToDosForItem"
            style="document" />
          <wsdl:input>
            <soap12:body use="literal" />
          </wsdl:input>
          <wsdl:output>
            <soap12:body use="literal" />
          </wsdl:output>
        </wsdl:operation>
      </wsdl:binding>
    </wsdl:service>
  </wsdl:binding>
</wsdl:binding>

```



```

    </wsdl:operation>
    <wsdl:operation name="GetTemplatesForItem">
      <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetTemplatesForItem"
style="document" />
        <wsdl:input>
          <soap12:body use="literal" />
        </wsdl:input>
        <wsdl:output>
          <soap12:body use="literal" />
        </wsdl:output>
      </wsdl:operation>
      <wsdl:operation name="StartWorkflow">
        <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/StartWorkflow"
style="document" />
          <wsdl:input>
            <soap12:body use="literal" />
          </wsdl:input>
          <wsdl:output>
            <soap12:body use="literal" />
          </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="AlterToDo">
          <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/AlterToDo" style="document"
/>
            <wsdl:input>
              <soap12:body use="literal" />
            </wsdl:input>
            <wsdl:output>
              <soap12:body use="literal" />
            </wsdl:output>
          </wsdl:operation>
          <wsdl:operation name="GetWorkflowDataForItem">
            <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowDataForItem"
style="document" />
              <wsdl:input>
                <soap12:body use="literal" />
              </wsdl:input>
              <wsdl:output>
                <soap12:body use="literal" />
              </wsdl:output>
            </wsdl:operation>
            <wsdl:operation name="ClaimReleaseTask">
              <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/ClaimReleaseTask"
style="document" />
                <wsdl:input>
                  <soap12:body use="literal" />
                </wsdl:input>
                <wsdl:output>
                  <soap12:body use="literal" />
                </wsdl:output>
              </wsdl:operation>
              <wsdl:operation name="GetWorkflowTaskData">
                <soap12:operation
soapAction="http://schemas.microsoft.com/sharepoint/soap/workflow/GetWorkflowTaskData"
style="document" />
                  <wsdl:input>
                    <soap12:body use="literal" />
                  </wsdl:input>
                  <wsdl:output>
                    <soap12:body use="literal" />
                  </wsdl:output>
                </wsdl:operation>
              </wsdl:operation>
            </wsdl:binding>

```

</wsdl:definitions>

7 Appendix B: Product Behavior

The information in this specification is applicable to the following Microsoft products or supplemental software. References to product versions include updates to those products.

- Microsoft Office SharePoint Server 2007
- Microsoft SharePoint Server 2010
- Microsoft SharePoint Server 2013
- Microsoft SharePoint Server 2016
- Microsoft SharePoint Server 2019

Exceptions, if any, are noted in this section. If an update version, service pack or Knowledge Base (KB) number appears with a product name, the behavior changed in that update. The new behavior also applies to subsequent updates unless otherwise specified. If a product edition appears with the product version, behavior is different in that product edition.

Unless otherwise specified, any statement of optional behavior in this specification that is prescribed using the terms "SHOULD" or "SHOULD NOT" implies product behavior in accordance with the SHOULD or SHOULD NOT prescription. Unless otherwise specified, the term "MAY" implies that the product does not follow the prescription.

[<1> Section 2.2.3.1](#): The client looks for specific values in this element to determine whether to enable creation of a new workflow instance.

If this element contains "General", "Word.Application", "Word.Application.12" or "SigClientRequired", then Microsoft Word 2010 enables creation of a new workflow instance.

If this element contains "General", "Excel.Application", "Excel.Application.12" or "SigClientRequired", then Microsoft Excel 2010 enables creation of a new workflow instance.

If this element contains "General", "InfoPath.Application", "InfoPath.Application.12" or "SigClientRequired", then Microsoft InfoPath 2010 enables creation of a new workflow instance.

If this element does not contain "SigClientRequired" and contains "General", "PowerPoint.Application", or "PowerPoint.Application.12", then Microsoft PowerPoint 2010 enables creation of a new workflow instance.

If this element does not contain "SigClientRequired" and contains "General", "Outlook.Application", or "Outlook.Application.12", then Microsoft Outlook 2010 enables creation of a new workflow instance.

If this element does not contain "SigClientRequired" and contains "General", "Access.Application", or "Access.Application.12", then Microsoft Access 2010 enables creation of a new workflow instance.

[<2> Section 2.2.3.1](#): Office SharePoint Server 2007 does not support this element.

[<3> Section 3.1.4.5.2.2](#): Office SharePoint Server 2007 does not include this attribute.

[<4> Section 3.1.4.5.2.2](#): Office SharePoint Server 2007 and SharePoint Server 2010 do not include this attribute.

8 Change Tracking

No table of changes is available. The document is either new or has had no changes since its last release.

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